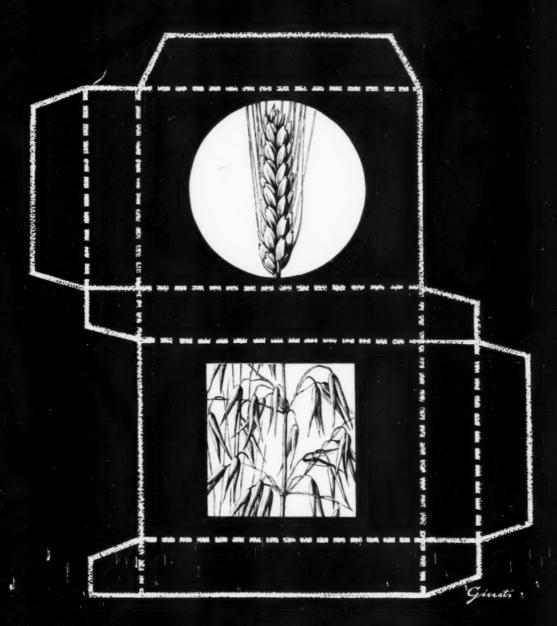
MODERN PACKAGING

APRIL 1954



IN THIS ISSUE:

Makers of foodstuffs are masters of protective packaging at low cost NO DOG EARS

400% Higher Glue Cost Saves Money

Here's one manufacturer's savings: In side seaming flour bags before forming satchel and square bottom gusset bags. Production was stepped up to 250 bags a minute. Compression time was shortened. Shelf leakers reduced. Down-time for glue adjustment or change stopped. And waste—caused by tail outs, side outs, or dog ears—was ended.

Here's the adhesive: A new fast breaking, instant bonding Resyn adhesive that holds tight at score points and prevents leakers. Bonds both nonporous and porous bag stock; tubing, cartons, and boxes. Applies a thin, nonpenetrating film. Is colorless, odorless. And more moisture resistant than vegetable glues.

National Starch Products Inc. (Adhesives Division), 270 Madison Ave., New York 16; 3641 So. Washtenaw Ave., Chicago 32; 735 Battery St., San Francisco 11; and other principal cities.



RESYNS® . ADHESIVES . STARCHES

What makes a carton better?



GAIDR STRUCTURAL DESIGN

One of the features of Gair's Coordinated Packaging Service

Hand a product to the Gair engineers and ask for a folding carton that will protect it . . . display it . . . sell it — they'll come up with the answer. The structure they design may range all the way from a simple seal end carton to a rhomboid display like the one illustrated. Whatever it is, it will be the right carton for the job.

For instance, Gair's team of gifted craftsmen worked with the Hat Corporation of America to produce the first folding carton for men's hats—and ended the 150-year reign of the round pre-formed box.

In meeting challenges of structural design, Gair engineers solve problems which extend from the choice of paperboard to how the carton will work on an automatic packaging machine.

Add structural design to the other features — graphic design and its faithful reproduction, carton production from a variety of materials, expert help on mechanical packaging — and you have the story on Gair's Coordinated Packaging Service.

This service can solve your problem, too; we'll be pleased to tell you how. For specific information on carton structure, write for a copy of Cartons by Gair. Please address request to Dept. 25.



FOLDING CARTONS
SHIPPING CONTAINERS
PAPERBOARD

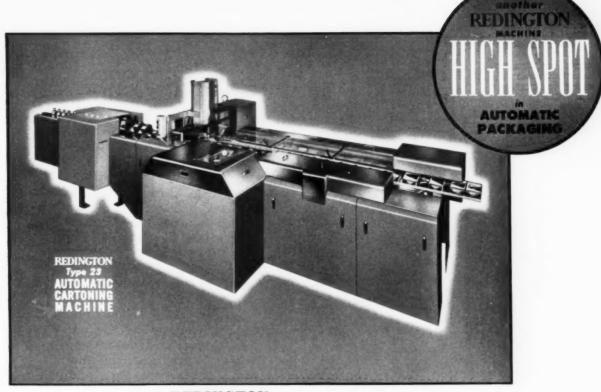
ROBERT GAIR COMPANY, INC. . 155 EAST 44th STREET . NEW YORK 17

MODERN PACKAGING

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| Mug appeal 78 With pastel-colored plastic beakers, Sealtest puts a new slant on re-use premium promotion of cottage cheese. | Winners in the 9th annual carton makers' competition, chosen from 6,288 entries, show emphasis on salesmanship. | |
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*Reg. U.S. Pat. Office



7his REDINGTON Automatically Cartons 7hese STEPHAN Packages

Better - at Lower Cost

Here is the fast, efficient operation of the REDINGTON Type 23 fully automatic cartoning machine which daily turns out thousands of securely closed packages of Stephan's Dandruff Remover Hair Lotion in the Sunnyvale, California plant of Stephan Cosmetic Corp.—and does it with minimum labor and with a freedom from maintenance worries which greatly reduces downtime.

Filled, capped and labeled bottles are fed into the machine, standing upright on the intake conveyor. The REDINGTON turns each bottle on its back and lays it into a pocket of the article conveyor. As each full pocket passes the carton magazine, the machine feeds and expands a carton, and inserts the bottle. The REDINGTON next tucks in the end flaps to close the package. Completed packages are discharged.

This Type 23 is only one of the many models which REDING-TON has developed to handle automatic packaging requirements of varying kinds. You'll find REDINGTONS in some of the largest plants in the country, in pharmaceutical, cosmetic, food and specialty fields; and more and more, you'll also find them helping smaller-volume operators to keep down labor and other production costs, while maintaining a steady flow of properly packaged product with a minimum of maintenance and downtime. This type of machine can produce packages at speeds up to 200 per minute or more.

Over half a century of broad experience gives REDINGTON a unique edge in designing skill; and every REDINGTON machine features such important construction details as One-Piece Cast-Iron Base for rigidity—Ground and Polisbed Shafting—Self-Aligning Roller Bearings—and many others which assure long, efficient, trouble-free operating life. Call us in to talk over what a RED-INGTON can do for you!

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110-112 So. Sangamon St., Chicago 7, Ill. 342 Madison Ave., Room 828A, New York 17, N. Y.



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32 Pages of detailed information about the many REDINGTON standard and special machines for AUTOMATIC PACKAGING of everything from Codfish to Rator Blades. Write to our nearest office today for your free copy.

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- Since 1897 -

Executive and Editorial Offices 575 Madison Ave., New York 22, N. Y. Telephone: PLaza 9-2710

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MODERN PACKAGING

The hand is quicker

T HE BUNKUM BOYS are at it again. This time it's color television, which, they would have you believe, is a strange and mystifying new medium of package reproduction in which you will get lost unless they (for a price) lead you by the hand.

We went through this once before when television itself was new. A few packagers bought the bill of goods and went through a complete package redesign for the ridiculous reason that one of those packages had to stand up before a TV camera on alternate Tuesday nights. Then sanity took hold and it was realized that as long as the label design was bold and clean and simple-as it certainly should be-it was absurd to throw out a strong selling design for a mere matter of camera-eye color separation, which a make-up artist could take care of as readily as he could touch up Mr. Sponsor's shining pate.

But now we have the added question of color reproduction and color has always had, for packagers, some deep mystery about it. The idea that red would automatically sell 331/3% more than blue has been laughed out in recent years. But the "color consultants" and quick-buck designers are back trying to get their foot in the door with color TV.

Fortunately, we have some sound, cool heads among the legitimate package designers.

Says George Reiner: "The point of sale is still in the retail store and not in the living room. A package designed primarily for the retail shelf, with only slight modification to meet color TV requirements, will do a better over-all sales job than one which does a great job on the screen yet flops at the counter."

Says Jim Nash: "Design packages especially for TV reproduction? Absolutely not! Goods are sold on the shelf and should be packaged for the shelf."

Says Frank Gianninoto: "A good package is good anywhere . . . If a package is too busy in design or color to reproduce effectively in a one-column newspaper ad, it will be poor anywhere else. This yardstick of measurement will not change with the advent of color TV."

Enough said?

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who use package testing facilities to measure
the performance of corrugated containers
choose Union as one of their sources of supply



Eastern Division Sales Offices: 1400 E. State St., Trenton 9, N. J. Western Division Sales Offices: 4545 West Palmer, Chicago.



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These days, shoppers ignore the ordinary.

Any room for improvement on your sales chart? You'd be surprised how 43 years of creating lithographed tools for selling roduct the unusual tug that loosens plus 220,000 square feet of new agraphic equipment in ons why it pays to call . . .

CONSOLIDATED Lithographing Corporation

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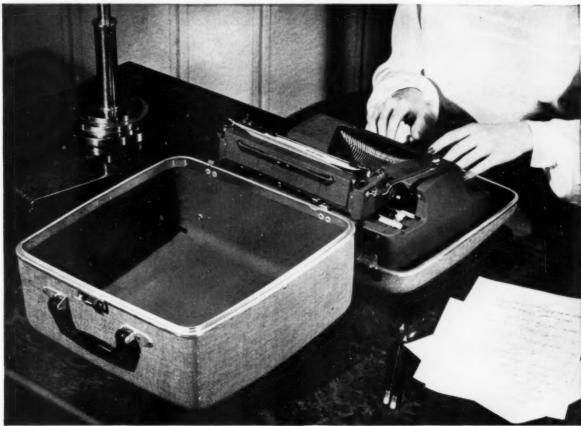
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MODERN PACKAGING

Another new development using

B. F. Goodrich Chemical raw materials



This Royal portable typewriter case is manufactured by Hawley Products Company, St. Charles, Ill. B. F. Goodrich Chemical Combany supplies the Hyear latex only.

The Case That Couldn't Be Cracked

PORTABLE typewriter cases live a bang-up life. They have to withstand rough handling, scuffing, even dropping! Tough conditions to meet, but the case pictured here does all this—and more!

The manufacturer molded it from a combination of fibrous glass, melamine resin and Hycar rubber latex, and Hycar gives it impact strength and resilience that provide a vital, extra margin of protection against damage.

In one practical demonstration, this case supported the weight of a 200-pound man without deforming. Then, it was struck repeatedly with a hammer. Examination showed no marks, dents, cracks or other damage. That's just part of the story: Hycar also provides excellent abrasion resistance and low moisture vapor transmission to the case.

What Hycar does for this typewriter case may give you an idea of how it can help you improve or develop more saleable products. Hycarhas manyadvantages formaking molded products, especially in protective coverings to get lighter weight and greater strength than is obtainable in products made from wood or pressed board. Where other qualities are needed, such as resistance to oil, grease, and high temperature aging, Hycar rubber compounds can be made to supply them. We'll help you select the Hycar rubber compound best suited to your needs. For technical information, please write Dept. , B. F. Goodrich Chemical Company, Rose Building, Cleveland 15, Ohio. Cable address: Goodchemco. In Canada: Kitchener, Ontario.

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NATIONAL CAN

PACKAGING FOR



... most everything in Mrs. Housewife's cupboard! To list the many products used in the kitchen alone would take several pages-for NC has pioneered - developed and manufactured packaging for a host of products. NC's team of production expert, research chemist, agronomist and merchandising counsel have been of inestimable aid in these projects. A call or wire puts them to work on your problems - no obligation, of course.



NATIONAL CAN

Plants At. BALTIMORE, MD. - CHICAGO, ILL. - MASPETH, N.Y.





Produce Bags by Milprint Packaging Materials, 4200 N. Holton Street, Milwaukee 1, Wis.

Look how your packaging can benefit from film made of Bakelite Polyethylene. With film surface treated by the convertor before printing, names and trade-marks last indefinitely. Eye-catching designs and colors give your package extra sales appeal. Product identification is immediate and displays are brighter and more effective.

At the same time, film made of BAKELITE Polyethylene protects merchandise in a strong, transparent, moisture-proof covering that keeps it clean and saleable. It offers excellent product visibility and resists tearing, cracking and abrasion. Bags made from this pliable film can be closed by sewing, stapling, heat-sealing or tying.

This is but one example of the many packaging uses for versatile Bakelite Polyethylene. It is also molded into squeeze bottles, flexible tubes and laminated to foil and cellophane to give heat-sealability and added strength. Get to know more about this useful material. Write to Dept. TS-55.

BAKELITE Polyethylene

BAKELITE COMPANY

A Division of Union Carbide and Carbon Corporation USS 30 East 42nd Street, New York 17, New York



The PACKAGE THAT "GRIPPED" THE WORLD

in Tri-State Rigid Plastic Bonus Boxes

John Dritz & Sons Dot Snappers have been holding up America's shorts, clothing, and slip-covers ever since Dot Snappers entered the home-sewing field 10 years ago. But it took a Tri-State rigid plastic container to help

the economy-size refill catch on!



Tri-State rigid plastic box, No. 32, Diam: 23/4" x 5/8" deep, is just one of a huge variety of stock sizes and shapes that will fit your product, or we will meld in quantity to your specifications.

When Dritz switched its Dot Snapper refill from a slowmoving "blind" cardboard wrap to the crystal clear, re-useable Tri-State box, notion counters everywhere were quick to spot its key-item possibilities. The Dritz economypack refill in the Tri-State box has been the re-order of the day ever since!

Tri-State packaging has been opening new sales horizons for snapdragons as well as Dot Snappers. As molders of the world's greatest assortment of rigid plastics, Tri-State may wrap up new profits for your product, too.

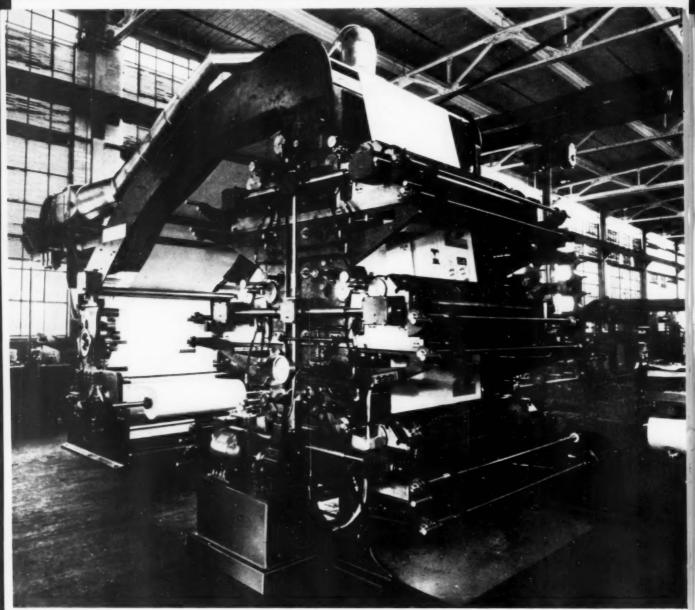
The best Rigid Plastic Boxes are Injection Molded by

TRI-STATE PLASTIC MOLDING CO., Inc.

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when a Kidder press starts rolling for you. In every detail of design, construction and performance, Kidder presses are proving their ability to deliver top-quality printing at lowest cost.

Throughout this Kidder Flexographic Press, for example, gears are precision cut, rollers are ground and balanced, and bearings are carefully fitted. In operation, single centralized control automatically engages and disengages all colors from one point, with plate

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Here's a press you can depend on for profitable production on every job — plus the kind of Flexographic printing that keeps your customers happy. For facts on how Kidder advantages can benefit your printing operations, write to Kidder Press Company, Inc., Dover, New Hampshire.



Letterpress, Flexographic and Gravure Presses Slitters and Rewinders



...and sending Cake Mix Sales skyrocketing, too!



The more women use 7-MINIT FROSTING, the more cakes they bake...the more 7-MINIT they buy... the more packages of cake mix they buy. It's a luscious circle... with the grocer in the middle happily replacing his stacked displays of both cake mixes and 7-MINIT.

Of course it's a wonderful product...brightly dressed up and bound to attract first-time buyers. But what keeps the product wonderful and assures repeat sales...as the makers attest...is the package. This frosting mix is highly hygroscopic, with volatile flavor elements. Reynolds Wrap Aluminum Packaging gives it the absolute moisture protection it must have... and prevents flavor loss.

If your product needs quality protection, get the facts on the best protective packaging and on the new sales-boosting Reynolds Wrap Aluminum Packaging Seal. Call the nearest Reynolds Sales Office or write to Reynolds Metals Company, General Sales Office, Louisville 1, Kentucky.



Big National Advertising Campaign in High Gear!

Third four-color, full-page ad, featuring candies, appears in April WOMAN'S DAY and 3 FAMILY CIRCLE... faurth ad, featuring cookies, in May GOOD HOUSEKEEPING, HOUSEKEPING and McCALL'S.



Pioneers in Aluminum Foil Packaging

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| GROUND COFFEE 1500 SINGLE WEIGH 4 HEADS-100/MIN | | **** | | 7 ± 5 0 % ± 5 0 % ± 5 |
| SINGLE WEIGH 2 HEADS - 70/MI | | | | タズ 主義 ログ 主義 |
| ELBOW MACARONI DUAL WEIGH 4 HEADS - 80/M | | | | 99% ±± 90% ±æ |
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best net yet...

WEIGHS WITHIN HUNDREDTHS OF AN OUNCE!

The secret of Pneumatron is relatively simple the results little short of miraculous. An air actuated control measures deflection in millionths of an inch—while weighing within hundredths of an ounce.

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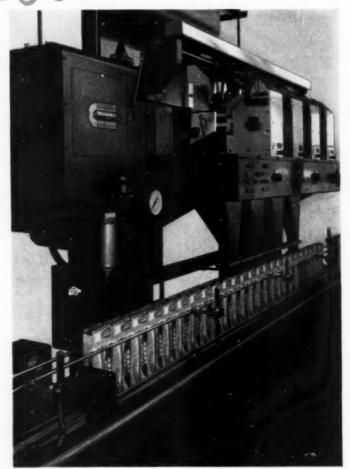
CONSISTENT—Weights hold to the line month after month without adjustment of controls.

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PNEUMATIC

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GOOD TASTE in the container sells the good taste of the product! That's why leading candy makers and packers of food specialties choose us to supply their decorated metal containers.

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OLIVE CAN COMPANY

PLAIN AND LITHOGRAPHED

METAL CONTAINERS

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Write today for your samples of POLYEON barrier boards, food boards, kraft, foil, non-woven cloth, boxboard, tag and other salesbuilding combinations for protective packaging.

The smaller the size of a carton, the bigger the job that must be done by its design and copy. Unusual sharpness and clarity is demanded of the printing, with no allowable latitude for even slight fill-in of tonal screens, spreading of lines and type, or off-register of elements.

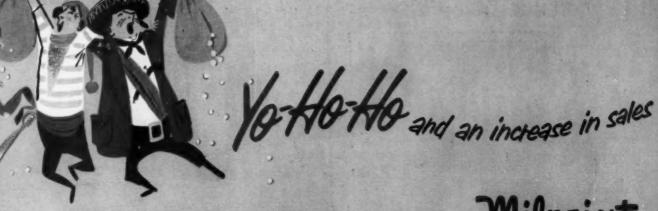
In packaging the products of pharmaceutical companies, of cosmetic manufacturers, of confectionary producers and other firms, industry leaders have found no boxboard to match Ridgelo clay coated custom-made.

From the standpoint of surface, Ridgelo's high gloss and perfect ink reception assures "engraver proof" results the length of the longest press runs. From the standpoint of appearance, Ridgelo's wide range of finishes, of impregnated and light-fast colors, precisely fit any given requirements and color swatches.

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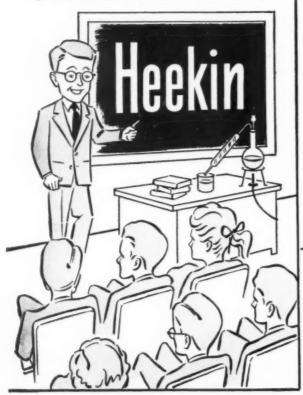
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GENERAL OFFICES, MILWAUKEE, WISCONSIN SALES OFFICES IN PRINCIPAL CITIES

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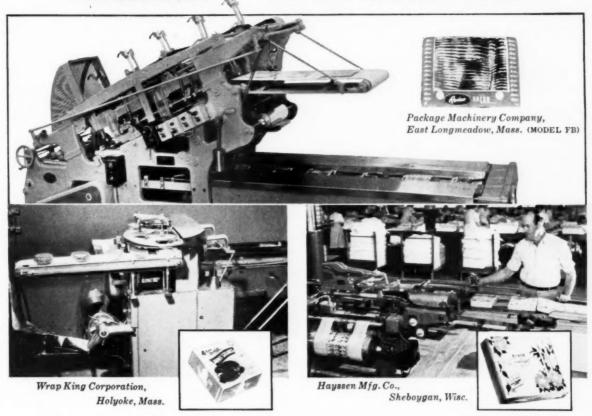
HEEKIN Lithographed CANS

AT YOUR SERVICE... the kind of scientific research and skill that comes only with fifty-three years of can making experience. This means that Heekin Lithographed Cans are Product Planned. Weight, thickness, precision, delivery on schedule are expected of any can manufacturer. Why not get that extra service that comes to you because Heekin Lithographed Cans are Product Planned?

Heekin PRODUCT PRODUCT CANS

THE HEEKIN CAN CO., Cincinnati 2, Ohio

How to make a TIGHTER-TOUGHER-TRANSPARENT PACKAGE – at no extra cost



Machine-wrap with PLIOFILM for high-speed, tight wraps that stay tight all the way to the customer—no broken seals—no loose, saggy packages. The perfect smooth-fitting wrap that puts the "quality label" on every product.

This tough, moisture-resistant, transparent film is successfully used in all leading types of semi- and fully-automatic operations including high-speed packaging. What's more, PLIOFILM is thrifty to use, goes much further – because its positive heat seal virtually eliminates broken packages and rewraps.

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Booth 446 at the National Packaging Exposition, Atlantic City, April 5—8.



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3-way protection against air, moisture, liquids

We think you'll like "THE GREATEST STORY EVER TOLD" - every Sunday - ABC Radio Network - THE GOODYEAR TELEVISION PLAYHOUSE - every other Sunday - NBC TV Network





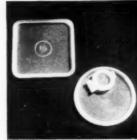
NOBODY HAS AS MUCH EXPERIENCE AT MOLDING POLYETHYLENE AS



The logical molder for you to consult regarding that product or package of yours which is to be made of polyethylene is Tupper. Tupper has done more than any other molder to make molded polyethylene a practical reality.

Aside from having designed, patented, and promoted successful seals, closures, and dispensers for polyethylene containers, the Tupper Corporation has vast experience in every phase of polyethylene packaging and polyethylene injection molding. This experience will be of major importance in improving your product, in reducing your costs, when Tupper goes to work for you.

Tupper's combination of experience, technical ingenuity, and the most modern equipment is at your service for the custom molding of your product in polyethylene. You can do no better than the best ... and the best at molding polyethylene is Tupper!



Tupper Seals are air and liquid-tight flexible covers. The famous Pour All and Por Top covers are designed for easy dispensing. They are made in sizes to fit all Tupperware containers.



When equipped with Tupper Seals, Tupper Canisters, Sauce Dishes, Wonder Bowls, Cereal Bowls and Funnels in various sizes are the most versatile reusable containers you have ever



UPPER!

JPPER CORPORATION

Manufacturers of - CONSUMER, INDUSTRIAL PACKAGING AND SCIENTIFIC PRODUCTS

Factories, Laboratories and Sales Offices: arnumsville, Mass., Orlande, Fla., L'Epiphanie, P.Q. Showrooms: 225 Fifth Ave., N. Y. C.

patents applied for, plus numerous trademarks and copyrights, cover the design and manufacture of the various types of Tupper Seals and other Tupper Products. Unauthorized manufacture of items covered by Tupper potents will subject infringers to prosecution.



CROWN SPRA-TAINER.

SWEEPS

The names read like

Who's Who In Shaving Creams."

These are Crown customers,

we're proud to say.





































Pressurized Shave Cream Field

Menthol-Iced Foam Shave



ld Spia

HOOTH SHAVE

Gittette

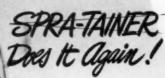












SPRA-TAINER was born to leadership. Historically, it was the world's first lightweight pressurized container. Now it's "First Choice" with manufacturers in one industry after another. No Top Seam, No Side Seam" construction provides surest product protection. Exclusive "Modern Design" commands the most attention, hence sells the most merchandise. SPRA-TAINER is but one member of Crown's distinguished family of finest quality cans. Our complete line offers progressive packaging to the many and diverse products of American industry. May we tell you about it

in person? Just call or write.

CROWN CORK & SEAL COMPANY, INC.

of Concricio Largest Con Manufactures

DELPHIA - CHICAGO - ORLANDO - BALTIMORE NEW YORK - BONTON - ST. LOUIS



Is your package up to date in consumer appeal?

Every effective, competitive package today meets the consumer more than half way. Planning such a package for *your* product calls for an understanding of the benefits of such factors as consumer convenience, informative labeling, and the power of visibility.

You can count on Du Pont for help in planning a package that's up to date . . . in line with the buying habits of today's shoppers. Get in touch with your Du Pont representative. He'll help you also in choosing the film type best suited to your product's needs . . . and in assuring the most efficient construction of your package. For information on bags and printed materials get in touch with your converter of Du Pont packaging films. E. I. du Pont de Nemours & Co. (Inc.), Film Dept., Wilmington 98, Del.

Why Du Pont is packaging-film headquarters

- 1. WIDE VARIETY OF PACKAGING FILMS scientifically tailored to meet the needs of varied products and packages.
- ${\bf 2.7ICHNICAL}$ assistance to help you plan the most practical and efficient construction of your package.
- ${\tt 3,MERCHANDISING}$ help through continuing nation-wide surveys of buying habits, to keep your package up to date.
- 4. NATIONAL ADVERTISING to continually strengthen consumer preference for your packaged products.

DU PONTPACKAGING FILMS

CELLOPHANE POLYETHYLENE • ACETATE



Better Things for Better Living
. . . through Chemistry

BUNDLING



SCANDIA

Manufacturers of Better Packaging Machinery

· 500 BELLEVILLE TURNPIKE · NORTH ARLINGTON, N. J. ·

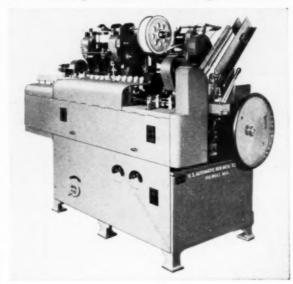
330 SOUTH WELLS ST., CHICAGO 6, ILL.

BUNDLING · BANDING · MULTIPLE WRAPPING · STAMPING · HIGH SPEED WRAPPING

Eliminate CHANGE-OVER TIME The Versatile C 10 CCC

all these types of candy without adjustment





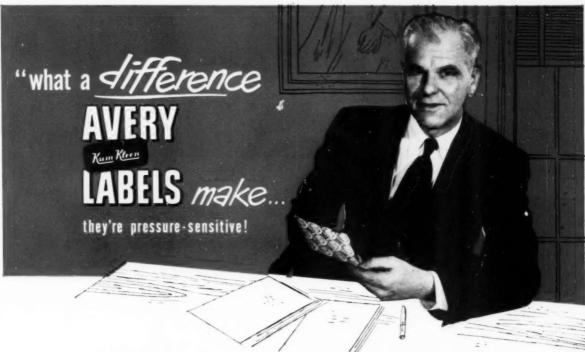
Candy manufacturers and distributors who package a wide variety of hard, semisoft or easily marred candies will find the Model C-10-CC Volumetric Filler ideal for their multiple requirements. It will handle all their products without adjustment when package size and volume are kept uniform. The Model C-10-CC automatically extracts the flat carton, opens it, tucks bottom flaps, cuts, forms and inserts liner into the carton and then volume fills the correct amount of candy. When desired, the liner may be omitted. Final operation on the C-10-CC folds the top of the liner closed and tucks and closes the top flaps of the carton. An automatic check weigher rejects any underweight packages. Only one operator is required to supervise the machine, and speeds of 60 filled cartons per minute are available.

Check the many varieties of candy packages shown and you'll see how the C-10-CC can fill your packaging problem. Write for complete details today.



NET & GROSS WEIGHING & PACKAGE FORMING & FILLING & CARTON SEALING, LINING, WRAPPING & BOX MAKING AUTOMATIC BOX MACHINERY CO., INC. wring and Operating NATIONAL PACKAGING MACHINERY CO. * CARTONING MACHINERY CORP

122 ARBORETUM ROAD, ROSLINDALE, BOSTON 31, MASS.



...and save us time and money —in every department!"

- On the production line or on the product...
 in the shipping department, warehouse or office...engineering, inspection or research...in
 maintenance or management...every place you
 need to mark or label, Avery can save you time
 and money—can simplify and speed your work.
- Avery Pressure-Sensitive Labeling is different because there's no licking or moistening ... no sticky or messy fingers... and no waste motion. They're self-adhesive... on at the touch of a finger—and they're tight, right now!
- Avery Dispensers—either manual or electric—are available to give you low cost, dependable labeling. They're inexpensive to own and operate...need no special or skilled labor. They'll work into any production line—at any desired speed.
- Write today for details, free samples and case histories of Avery Pressure-Sensitive Labeling!





color coding

Instant identification of the contents, quality or quantity of a package or case saves valuable time and prevents costly errors.

That's why hundreds of various manufacturers, stores and business firms—everything from a bakery in San Antonio to a thread mill in New England—use Avery Kum-Kleen Labels for quick visual coding.

Four different variables can give almost any amount of data needed: color, size, shape and printed letter or number codes are made to your order or specifications. Where can you save time and money with Avery Color Code Labels?

AVERY LABELS

AVERY ADHESIVE LABEL CORP., Custom Div. 127

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| Please send case histories |
|----------------------------|
| and free samples |

| | Have | the | Avery | Labe |
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In the egg shell nature ingeniously devised a nursery with 7,500 miniature windows that admit life-giving air yet prevent the escape of moisture and nutrients. . . . Another example of natural success through purposeful packaging.

Every product needs specialized packaging.

When you rely on Cochran Foil you rely on the source of technical perfection, whatever your field, whatever your problem.

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238 West Wisconsin Ave. Milwaukee 3, Wisconsin

500 Fifth Avenue New York 36, N. Y.

Hippodrome Building Cleveland 15, Ohio

813 N. Labrea Ave. Los Angeles 38, Cal.

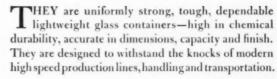
260 Kearny Street San Francisco 8, Cal. the specialists in aluminum foil

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FOIL COMPANY

MANY Styles and Sizes

... BUT ALL ANCHORGLASS CONTAINERS HAVE THE SAME QUALITIES

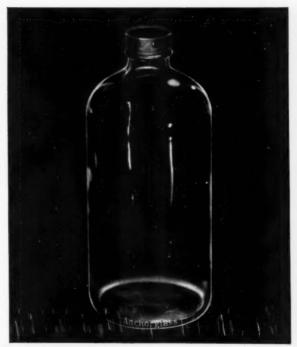


Anchorglass containers are the result of practical engineered designs, careful selection and control of raw materials, uniform distribution of glass, precise temperature control in annealing and thorough quality control through laboratory tests and regular inspections.

If you package or contemplate packaging in glass let us send you sample containers with suitable closures for your particular needs. The services of our Package Engineering and Research Laboratories are also available to help you solve glass packaging problems.



Anchorglass® Boston Round Bottles are available in 15 different sizes ranging from 1/2 to 128 ounces-in crystal, amber or emerald green glass.



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WHERE COSTS ARE HIGHEST--STANDARD-KNAPP SAVES YOU MOST

First, we don't waste your time in getting down to essentials. Our engineers talk your language, quickly understand your requirements and accurately interpret them in terms of package handling equipment.

The next point of savings is in the price of the equipment itself. We have a broad and versatile line of standard models and long experience in adapting them to specific requirements. You get a "customized" installation at the lowest possible cost.

Next, we save you time in realizing the benefits from Standard-Knapp equipment. We train your operators, get them to know and like the machines, provide them with easy-to-read operating instructions. Then, you can count on a strategically located service organization for prompt and competent assistance in keeping Standard-Knapp equipment at full efficiency.

To save most where it counts the most, call in Standard-Knapp — whether you need a complete line of packaging equipment or a single machine.



CARTONING AT HIGH SPEED in huge volume on Standard-Knapp 180 Carton Inserter helps hold profit margin on new merchandising package for photographic film.



50% SAVING in packaging costs of electric ranges has been realized through development of giant automatic Standard-Knapp gluing and sealing machine for mammoth corrugated cartons.



EMPTY CAN
PALLETIZING
SYSTEM devised by
Standard-Knapp speeds
and simplifies delivery
of empty cans to user,
expedites introduction of
cans into filling and
processing lines. Another
example of StandardKnapp pioneering in
better packaging methods.

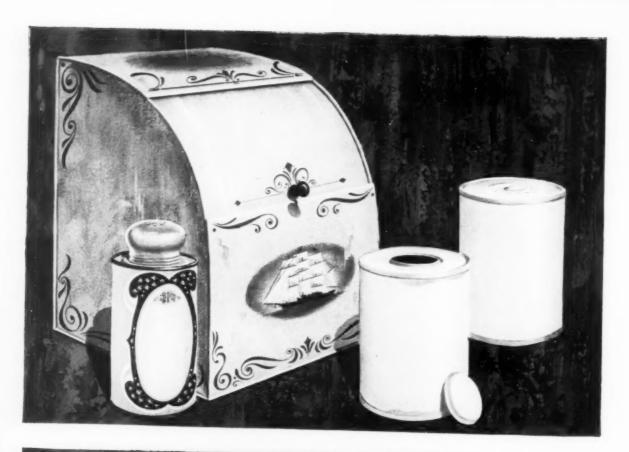


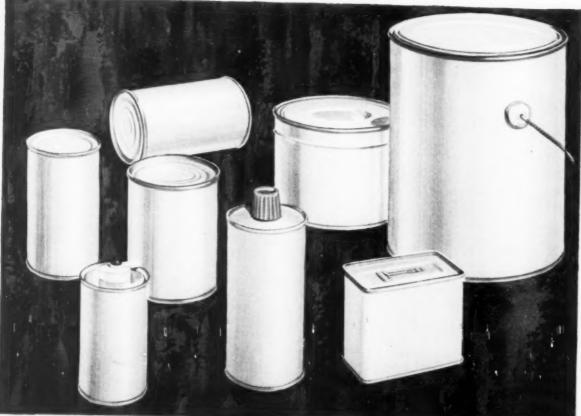
IN PACKAGING -- STANDARD-KNAPP EQUIPMENT IS

STANDARD - KNAPP

DIVISION OF EMHART MFG. CO.

PORTLAND, CONNECTICUT





Yesterday...today...tomorrow...Canco's objective is the same:

More markets... more sales for you

Ever since its first containers were produced at the turn of the century, Canco has had one basic objective in mind:

To bring your products more efficiently, more economically to more people.

Have you considered this?

Today Canco is in a better position than ever to provide you with efficient containers... to help bring your products to more markets, to help create more sales for you. Here is undeniable evidence: Over the years Canco has assembled for you a unique combination that cannot be matched by any other can manufacturer: an unequalled combination of able people, conveniently located plants, research leadership, technical assistance, delivery service, continuous quality and invaluable experience.

If your company is not enjoying Canco services, isn't right now the time to start?

Go first to the people who are first!

AMERICAN CAN COMPANY

New York, Chicago, San Francisco; Hamilton, Canada



These are a few of the familiar meat cans that have provided housewives with a wide variety of easy-to-serve dishes—given a tremendous boost to sales of meats and meat products.

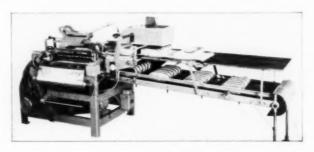


HAYSSEN MFG. COMPANY

Dept. MP-4 · · SHEBOYGAN · WISCONSIN

wrap textiles automatically on the





HAYSSEN AUTOMATIC TEXTILE WRAPPING MACHINE

Hayssen Automatic Textile Wrapping Machines produce neat packages, with wrapping that fits like a glove. Printed designs are registered, and uniformity in appearance is maintained. The Hayssen is fully automatic . . . low in initial cost . . . easily adjusted to wrap a wide range of sizes . . . and keeps the unit-cost of wrapping at a low level. Wraps cellophane, pliofilm, laminated cellophane, polyethylene, sulphide or kraft paper.





rocket

FISHER'S FOIL







One of the many S & S automatic filling machines, this model HG-84 Duplex Filler quickly and accurately fills powder and granular products at the rate of one container per second.

FILLED TO

The packaging of condiments and spices, from dust-like powders to finely ground granules requires automatic precision filling to a fraction of an ounce. To fill these exacting requirements, highly efficient filling machines were designed and developed by FMC's Stokes and Smith Company. Also extensively used by leading producers of cosmetics, drugs, chemicals, confectionary, bakery and food products, S & S filling equipment provides fast accurate quantity and quality controlled packaging, for semi-automatic and fully automatic operation with speeds from 15 to 120 packages per minute.

Contact us today, for complete details stating your specific filling requirements.



STOKES & SMITH CO.

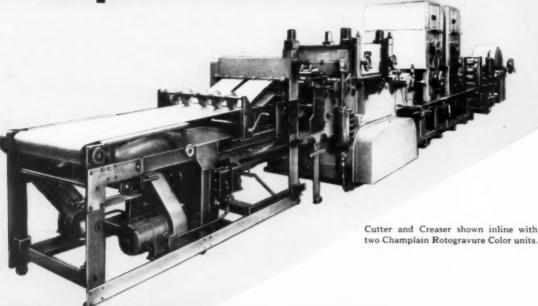
FRANKFORD, PHILADELPHIA 24, PA.

Pocific Coost: SIMPLEX PACKAGING MACHINERY, INC., 534 - 23rd AVE., OAKLAND 6, CALIF.



SUBSIDIARY OF FOOD MACHINERY AND CHEMICAL CORPORATION

From this roll-fed Champlain Cutter-Creaser



PLATEN PRESS QUALITY CARTONS

at better than cylinder press speeds

At last – a Cutter-Creaser that puts the manufacture of high quality but low-cost cartons well within the reach of all carton makers. In one pass, it cuts, creases, and automatically strips cartons from a continuous web – and brings to the carton manufacturer all these PLUS advantages:

- INCREASED PRODUCTION RATE ... 7,500 to 10,500 impressions per hour.
- MAXIMUM QUALITY...the high quality of platen press cutting and creasing—at better than cylinder press speeds.
- THOROUGH AUTOMATIC STRIPPING...all intricate internal and interlocked scrap is stripped and carried away automatically.
- . LOW DIE COST ... with inexpensive steel rule and block or jig dies.
- CONSISTENT ACCURACY... patented intermittent feed insures uniform accuracy, even at highest speeds.
- MINIMUM DOWN TIME...changing of dies and make-ready is only a matter of minutes.

By itself, this new Cutter-Creaser has no equal. But when used inline — with rotary printing equipment—you gain not only the advantages of the Outter-Creaser but all these additional advantages:



- ABSOLUTE MINIMUM HANDLING OF STOCK... "once through the press" principle means no carting and storage between Multi-color Printing, Lacquering, Die-Cutting and Stripping.
- IMMEDIATE INSPECTION OF FINISHED CARTONS . . . from roll stock to finished cartons takes only a few seconds.
- ACCURATE REGISTER . . . quick, one pass operation of all inline equipment allows no time for change in character of stock.
- MINIMUM SET-UP TIME... no die impression needed for printing register—dies and plates are pre-matched.

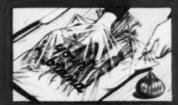
Champlain &

Champlain manufactures a complete line of rotogravure, flexography, rotary letterpress and allied equipment for packaging and specialty printing. Write today for catalog of Champlain press equipment and full information on the Champlain Cutter-Creaser Champlain Company, Inc., 88 Llewellyn Avenue, Bloomfield, N. J. Chicago Office: 520 N. Michigan Avenue Chicago 11, III.



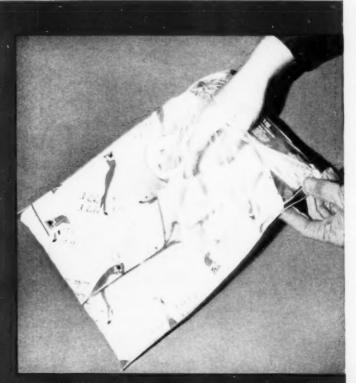
IN THE STORE - TOWN

polyothylene Benis Filp-Clare Bog sell your araduct right on the counter, whether it's a reli-service or personal service store.



IN THE HOME—ray Cloud large are seven for the server begs, shoe begs, arrest begs, stc., so your setting message ramains before the customer's eyes for weaks

and months (Polyethylens does not deterlorate with one)... and builds repeat tales. Contrast this with the fleeting beauth of your



Bemis Flip-Close Bags sell your product...and keep selling it weeks and months afterward

A few of the Many Other Benefits of Flip-Close...

Customers can see and touch the merchandise without disarranging it or affecting the closure.

Dealers can put price tags on the merchandise without damaging the package.

Merchandise is protected from dust, dirt, shopwear; markdowns are minimized.

No special closing equipment or materials needed.

And ... they are economical.

Shipping weight saved.

Other Sales-Builders in the Bemis Poly Family...

Bemis Tie-Top Bag—For baby shoes; combinations of booties, mittens, cap, etc.

Bemis Flap Bag—For spreads, blankets, bed pads, pillows, drapes.

Bemis Double Pocket Bag— For related-item selling... handkerchief and tie; gloves and socks; sport shirt and swim suit. A real sales builder! Write for the complete story

Packaging for your produc

Bemis



08 Plan Street, Bax 49: St. Lauis 2, Mrs. She's seen it in The Saturday Evening Post.



she's seen it on Alcoa's Television Show "See It Now"...

and she likes the

<u>Easy-open, Easy-close Alcoa® HyTop</u>
on the Catsup she buys!



NOW--THERE'S STILL TIME TO GIVE YOUR. CUSTOMERS THE CAP THEY WANT IN 54



PRODUCTION NOTE:

The HyTop goes on at speeds up to 400 bottles per minute.



ALUMINUM COMPANY OF AMERICA



ALCOA ON TV brings the world to your armchair with "SEE IT NOW" featuring Edward R. Murrow, Tuesday evenings on most CBS-TV stations. FLY PAPER TACKINESS...

For tight wrap or loose wrap; semi or fully automatic production of fine set up boxes—Swift & Company announces a new and versatile high test glue with customized properties of high and prolonged tack.

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ECONOFLEX, as the name implies, is designed to save you money by affording quick, strong initial tack for maximum production; plus unique qualities of high and prolonged "fly paper" stickiness, quick melt down and excellent machinability . . . so necessary to modern high speed production.

ECONOFLEX is a flexible, high solids—low viscosity animal glue that will rate high with your operators for its ability to produce a free flowing, lasting film that will not build up on glue rollers.

Why not take advantage of this opportunity to realize maximum production efficiency . . . obtain "fly paper" tackiness in your gluing operations?

Fill out the coupon below for information on a trial quantity of ECONOFLEX.

One demonstration is better than a thousand claims



Another of Swift's Products for Industry

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Please send us your booklet on ECONOFLEX together with prices and shipping information.

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City......Zone....State......

Name.....Position.....

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Here's a revolutionary conception of packaging machinery-HESSER machines are next-to-noiseless and almost completely free of vibration! You'll have to see it to believe it ... we urge you to come and see (and listen). Think of it - plants with ten and more big machines in one room find that ordinary conversation can be carried on without interference. Employee morale goes way UP... work is done better, faster.

And these same construction features contribute to the long, long life of **HESSER** machines. Glance at the list of these features ... you'll begin to understand why. But no words can take the place of seeing these remarkable machines. So write today and arrange for a demonstration.

HESSER makes a complete line of machines for weighing, wrapping, bundling, printing and packaging Exclusive Agents for the U.S.A.

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Agencia Comercial Anahuac, S Hugo Schoener, Mexico I D. F Avenida Madero s FR.HESSER Co. Ltd.

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AIM* for FASTER Carton Assembly with Acme Steel Wire Stitching Ideas



Acme Idea Man, Marty Meehan, Detroit, Mich., helped solve this packing problem for Burroughs Corp.

*Acme Idea Man to help solve your problems A 20 percent increase in production-line packaging and, at the same time, a 50 percent reduction in manpower! That's the result of modern packing methods with wire stitching (Idea # 403) at Burroughs Corporation, Detroit. Here, Acme Steel Silverstitchers and Stitching Wire play a part in reducing the time for finished carton assembly by as much as 75 percent. Beyond a saving in time and labor costs, the company is assured that its products will stay securely packed and will arrive damage-free in customer's hands.

There may be an idea here for improving your packaging operations. Why not ask your Acme Idea Man about Acme Steel Wire Stitching methods. Or, write Acme Steel Products Division, Dept. GG-44, Acme Steel Company, 2840 Archer Avenue, Chicago 8, Illinois.

AIM For Safe, Lower-Cost Shipping



ACME STEEL



... INDUSTRY'S MOST RELIABLE ELECTRONIC COUNTER



Model D1 Counts up to 20 units per second: Other models up to 5000 UPS.

Model D2144

Double Decitron with 12 place tubes, counts gross lots as one unit on totalizer.





Model P2 Counts in any desired total 1-100. Other models 1-1,000,000





New, highly perfected Decitron electronic counters cover every counting need . . . from pills to case lots — in any quantity — at amazing speeds (up to 6000 units per second.)

Preset counters afford desired total counts i.e. dozens, fiftys, gross lots, etc. Lineal footage counters totalize production of paper, cloth, etc. Warning systems and other circuits can be energized by these counters if desired.

Write today — we want your counting problem.



ELECTRONIC PRODUCTS DIVISION

POST MACHINERY COMPANY Beverly, Massachusetts



...VLCHEK PLASTIC BOXES

You, too, may face the problem of introducing your products properly to those who influence—or make—sales as did The Wm. S. Merrell Company.

This company wanted to acquaint physicians with its line of Nitranitol products widely used in the treatment of hypertension. They decided upon Vlchek Plastic Boxes.

Crystal-clear, these boxes dis-

play the products most effectively. "Samples were well received" to quote The Wm. S. Merrell Company.



Not only in the case of drugs, but also in that of foods, small mechanical parts, cutlery, hardware and many others, Vlchek Plastic Boxes display and sell to advantage. We help the users by suggesting the size and kind of package which will best serve them.

If you have a packaging problem, let's talk it over. You can count on personal attention.

ANOTHER PACKAGING TRIUMPH

From roll stock...
to filled packages...
to complete carton!

automatic operation cuts cost!

Bartelt has added an efficient, automatic cartoner as an accessory to their popular packaging machine. Now, automatically without additional operators this machine will: (1) Form a pouch style bag from a roll of preprinted paper, film, or foil. (2) Fill the bag accurately. (3) Heat seal safely. (4) Transfer finished pouch to the cartoner. (5) Set up carton, insert the desired number of pouches, glue or tuck ends of the carton. (6) Rack package in compression track for transfer to overwrap or for caser.

The dependability of these machines is greatly increased by a simplified design and efficient, precision manufacturing. If you can use a pouch style, heat sealed package . . . send us your packaging problems.



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1900 HARRISON AVENUE ROCKFORD, ILLINOIS

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maties control

"Machinery for Creative Fackaging" Whether you want to protect toys or textiles from dust and dirt—keep produce fresh from farm to table—or lock moisture away from sensitive hygroscopics—VISQUEEN does the job. VISQUEEN is hard to tear, doesn't split, crack, run or shatter. If you puncture it, the damage won't spread. VISQUEEN is chemically inert, absolutely pure, tasteless, odorless. So it's ideal for foods. VISQUEEN doesn't block. Bags made from the film open easily to speed packaging operations. Furthermore, it can be sealed with heat, tied, sewn, taped or stapled. So it adapts readily to a variety of packaging lines. VISQUEEN's unequalled uniformity means more bags to the pound—to save you important money. Above all, VISQUEEN "C" is the printable polyethylene. It takes ink brilliantly and the ink stays on to carry your brand name right into the home. For better packages, use the coupon.

Vielseitig!*

in any language . . .





Important! VISQUEEN film is all polyethylene, but not all polyethylene is VISQUEEN. VISQUEEN film is produced by process of U. S. Patents No. 2461975 and 2632206. Only VISQUEEN has the benefit of research and technical experience of The Visking Corporation, pioneers in the development of pure polyethylene film.

Vis Quelle film...a product of

THE VISKING CORPORATION

World's largest producers of polyethylene sheeting and tubing

Plastics Division, Terre Haute, Indiana

In Canada: Visking Limited, Lindsay, Ontario



... is tops for VERSATILITY

*They both mean Versatile

THE VISKING CORPORATION, BOX H4-1410, Plastics Division, Terre Haute, Indiana

Please send me names of converters of Visqueen film serving my area

Name Company

Address City Zone State

APRIL 1954

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World's Headquarters

FOR UNIT-PACKAGING

ECONOMY QUALITY QUANTITY SERVICE





Storaged Packaging Material



Air Conditioned Production

Only at Ivers-Lee can you get the world's finest Unit-Package at the lowest price ever paid for quality. Only at I-L will you find high-speed packaging machinery capable of producing over 15,000,000 packaged units. of any and all types, in one single 8 hour shift.

Nowhere else but at I-L will you be able to obtain *complete* packaging services for such diversified products as tablets, creams, capsules and powders. And remember, only I-L Super-Sealtite* can give you the exclusive advantages of Feather-Lite Tear and Double Diamond Tear Notches* . . . advantages that spell out enthusiastic consumer acceptance through the absolute in protection and the ultimate in convenience.

*Pats, and Pats. Pending

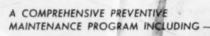


Creators of a thousand and one different types of Unit-Packages for tablets, capsules, triturates, powders, creams and unusual products during 34 years of Packaging Service.

FLEXOGRAPHIC PRINTERS:

"a Complete Roll Service-Nationwide!"

Now REGULAR PAMARCO INSPECTION SERVICE free for the asking!



- PERIODIC INSPECTIONS
- ROLL LOCATION CHARTS
- ROLL CONDITION REPORTS
- MAINTENANCE ADVICE

-designed to reduce your engraved ink roll maintenance

and re-engraving costs!

A new service for printers to assist in maintaining engraved inking rolls in condition for finest presswork. Pamarco service men will call at your plant, make a sketch of floor plan showing all flexographic presses and periodically supply roll condition reports. Recommendations and suggestions will be made and advice given pressmen as needed. Prompt attention to wear and damage means repairs can be made at lower cost and equipment will be in condition to produce finest presswork at all times. Consultation on any roll problem will be available at your convenience. PAPER MACHINERY & RESEARCH, INC., 1014 Oak St., Roselle, N. J.

FAST RE-ENGRAVING SERVICE!

Quick roll repairs by Pamarco reduce press down-time to a minimum. Check with Pamarco, today! REGISTER NOW FOR FREE

ROLL INSPECTION SERVICE

Send company name and address along with name of individual in charge of your presses. A Pamarco service man will do the rest. No obligation whatsoever.

MICRO-PRECISION ROLLS

ENGRAVED INKING ROLLS ENGRAVED APPLICATOR ROLLS ENGRAVED EMBOSSING ROLLS NO-FLEX PLATE ROLLS

RUBBER COVERED ROLLS CHROME PLATED ROLLS
WARM SURFACE ROLLS
TUBULAR ROLLS • CHILL ROLLS

FAST, DEPENDABLE RE-ENGRAVING AND REBUILDING SERVICE - ALL OPERATIONS PERFORMED IN THE MODERN PAMARCO PLANT

leemcote Poster Urums

Give Sales Producing "Family Identification"

CALIFORNIA OIL COMPANY

Product



To introduce its RPM 10-30 Special Motor Oil, The California Oil Company supplemented usual types of advertising with a colorful display designed to help win quick public recognition and acceptance for this new product.

An attractive, new four-color package design was developed. This design is featured on all RPM 10-30 packages from one-quart cans to 55-gallon drums.

This "family" of packages displayed in pyramid form at thousands of service stations throughout the East has helped California Oil quickly establish recognition and acceptance for this new motor oil.

Reproduction on large containers of the same design that appears on small packages is made possible by the exclusive Rheemcote lithograph process with which any design can be repro-duced on drums up to 55-gallons in capacity.

You can use this powerful new advertising medium effectively. We will be glad to discuss, the matter with you, or send you a colorful booklet which describes the sales possibilities of this important new medium.

Sell as you ship with

cote Drums

RHEEM MANUFACTURING COMPANY World's Largest Manufacturer of Steel Shipping Containers

RICHMOND, CALIFORNIA NEW YORK, NEW YORK

SOUTH GATE, CALIFORNIA

NEW ORLEANS, LOUISIANA .

HOUSTON, TEXAS

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SPARROWS POINT, MARYLAND

YOUR FINGER TIP

A MOST COMPLETE LINE OF **PACKAGING** DHESIVES

end CARTON SEALING GLUES



DEXTRINES & GUMS

WATER RESISTANT GLUES for Military Civilian



DRY and LIQUID GLUES for SET-UP or FOLDING BOXES

LATEX AND RESIN ADNESIVES



BROOKLYN, N. Y



ANHATTAN

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STARCHES TAPIOCA FLOUR for beater and corrugator



CANNER LAP-END PASTES Het & Cold PICK-UP GUMS



BOTTLE LABEL GUMS for machines of all types



In addition to Packaging Adhesives, Manhattan manufactures a complete line of Adhesives for Every Industrial Purpose.



MANHATTAN PASTE & GLUE CO., INC. ion Brand adhesives

425 GREENPOINT AVENUE, BROOKLYN'N Y Factories at





CYLINDER PACKAGE

Beck precision-engraved rotogravure cylinders wrap up in "one package" these important features:

- * Pre-matched to dies for printing, cutting and creasing on inline equipment.
- * Maximum printing quality and minimum set-up time.
- * Complete service, from art to chrome-plated rolls . . . ready to run.



ROTOGRAVURE CYLINDERS

The Beck Engraving Company • 105 South 7th Street, Philadelphia 6









Finding the Right Package

is NO PROBLEM . . . if you CHOOSE . . .

CLEVELAND CONTAINERS

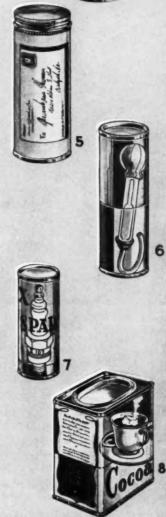
EFFICIENT . . . ECONOMICAL . . . ATTRACTIVE

- 1. PLAIN ALL-FIBRE CAN . . . Bottom firmly glued on, and top assembled loosely.
- 2. SLIP COVER CAN . . . Metal bottom seamed on, slip cover top of tin plate.
- FRICTION PLUG CAN . . . Metal top ring with tight fitting metal lid; metal bottom.
- 4. TURN-SIFTER TOP CAN . . . Friction plug type bottom and metal revolving perforated top.
- SCREW TOP CAN . . . Metal threaded ring with screw cap top; metal bottom.
- 6. METAL END TELESCOPE CASE... Three or two-piece construction. Available also with paper caps or ends curled and disced.
- UNIT PACK CAN . . . Metal bottom seamed on, metal top shipped separately for seaming on by packer. Civilian and military uses.
- CONVOLUTE LABELED CAN

 Available in round, square or oblong shapes.

LINERS...moisture and grease resistant and anti-corrosive liners can be provided for additional protection.

LABELS...strip labels, pre-printed wrappers, direct printing, or plain color wraps.



Write

The Cleveland Container plant nearest you for a copy of our new PACKAGING folder. LECLEVELAND CONTAINER

All-Fibre Cans • Combination Metal and Paper Cans
 Spirally Wound Tubes and Cores for all Purposes

PLANTS AND SALES OFFICES: Cleveland, Chicago, Detroit, Mamphis, Plymouth, Wisc, Ogdenchurg, N. V., Jameshurg, N. J., Lee Angeles: « ABRASIVE DIVISION of Cleveland. SALES OFFICES: Grand Central Terminal Bidge, New York City; Washington Gas Light Bidge, Westhington, D. C.; West Hartford, Conn., Rochester, N. V. Cleveland Contoiner Canada, Ltd.: PLANTS AND SALES OFFICES: Toronto and



HARD TO PLEASE

You'll look a long time before finding a group of men as hard to please as the paper technicians in the KVP laboratories.

Just say the word and they'll start getting choosey—for the sake of your product, your packaging program, your sales. Somewhere in the wide variety of KVP Papers they'll find the grade—or develop a new one—that's perfect for protecting the wholesomeness of your product.

Out of conferences like this have come some of the most successful package programs in modern merchandising. Successful because the product is *protected* and *promoted* at one and the same time — thanks to KVP

artists who team up with the technicians to add colorful, sales-stimulating package designs.

The KVP team is always ready to tackle new packaging problems. Do you have one for them? Send in the particulars for recommendations. No obligation, of course.

KALAMAZOO VEGETABLE PARCHMENT COMPANY

Parchment, Kalamazoo, Michigan

BRANCH AT DEVON, PA. ASSOCIATED COMPANIES: KVP CO. OF TEXAS, HOUSTON, TEXAS—HARVEY PAPER PRODUCTS CO., STURGIS, MICH.—KVP CO. LTD., ESPANOLA, ONT.—APPLEFORD PAPER PRODUCTS LTD., HAMILTON, ONT.; MONTREAL, QUE.

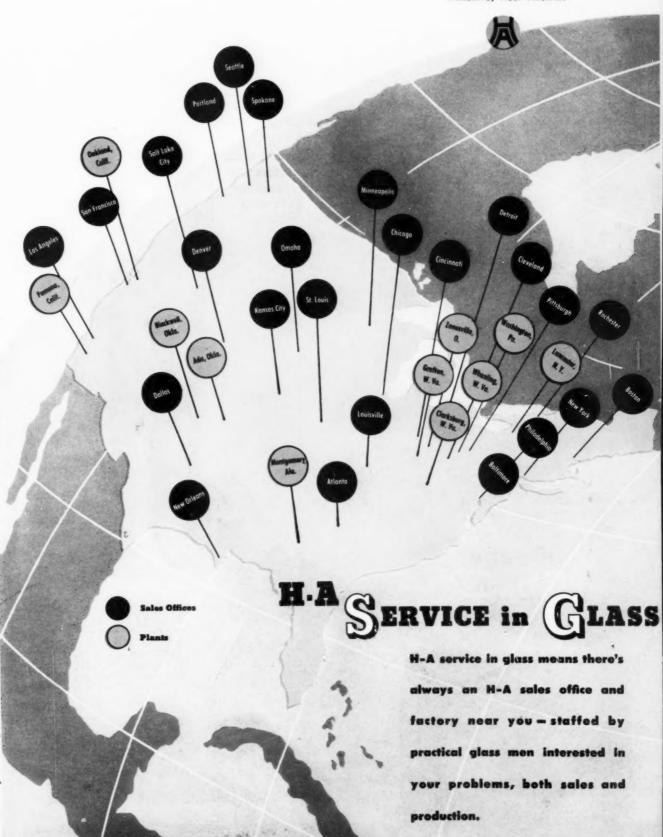
The World's Model Paper Mill



FOOD PAPERS - For Protection and Sales Appeal

Hazel-Atlas Glass Company

WHEELING, WEST VIRGINIA



John Dale of ENGLAND for quality containers

Collapsible tubes, metal, containers, closures to your exact specification—and made with p-r-e-c-i-s-i-o-n

BENZEDRINE INHALERINE

GBS ENTIFRICE

AGENTS IN INDIA

HOARE MILLER &
COMPANY LIMITED,
5 FAIRLIE PLACE,
P.O. BOX NUMBER 63.
CALCUTTA, I,

JOHN DALE

DHN DALE LIMITED, BRUNSWICK PARK ROAD, NEW SOUTHGATE, LONDON, N.II. ENGLAND.

TEL: ENTERPRISE 1272

Find how stapling can cut your costs

...IN SHIPPING. Thousands of shippers report sharp cost reductions when they switch to Bostitch stapling from glue, tape or strapping. In the shipping operation pictured here, the manufacturer cut his fastening costs 70%. With a prestitched Bostitch corner seam, and fully stapled bottoms and tops, cartons are neater, more secure and can be re-used.



... IN CARDING. We have records of firms saving thousands of dollars every year after switching to Bostitch stapling from tape, ribbon or die-cutting. Stapling is quicker, easier, and the materials cost less. Stapling increases sales appeal by giving more visibility to your product, is more secure in transit, and discourages pilfering.



Look up Bostitch at the PACKAGING SHOW in Booth No. 655, April 5 through 8. Bostitch Economy Men will be on hand to discuss your shipping and packaging problems.

Or Send Coupon Below, or write or call the Bostitch office in your phone book. 325 Economy Men to serve you in 123 cities.

Fasten it better and faster with

BOSTITCH®

BOSTITCH: 484 Mechanic Street, Westerly, R. I.

- ☐ Would like an Economy Man to analyze our fastening problems.
- ☐ Would like to have FREE BULLETIN on ☐ shipping ☐ carding

Name

Company

Address

City___

Zone ____State



ROWELL BOXES put your products on a pedestal

Join the proud packagers
who have Rowell create
square and round set-up boxes
that put their products
on a pedestal.

Manufacturers of Fine Paper Boxes



master package by PACKAGE

PRODUCTS

Mountain Packing Corporation

Product:

Skinless frankfurters.

Description:

LSAT cellophane wrap printed in four colors. Part of a complete set of co-ordinated packages.

Sales Status:

Introduction of new package line marked by immediate increase in sales activity in self service



The proven value of co-ordinated packaging was capitalized on by the colorful line of meat product wraps which were both designed and printed by Package Products.

During shipment and storage, the proper moisture content of the cellophane is maintained by a special duplex overwrap of cellophane and parchment — a feature of Package Products' Rotochrome quality control system.

Package Products Company

Charlotte, North Carolina

THE RADO PACK Simplest, most convenient, Lightest, easiest to pack, Unbreakable, Safest in distribution, Efficient, Very economical, Attractive, Displays the product.



ALL the advantages of Unit Packaging are embodied in Packs produced by the RADO SYSTEM—based on the RADO patents—the only fast, efficient way of producing such packages. Further interesting developments pending; ask for details NOW!

WE will pack YOUR product in packages of YOUR own design, decoratively emboss them to YOUR wishes, print them attractively to YOUR requirements. Almost ANY kind of liquid, semi-liquid or pastelike product can be successfully packaged by the RADO SYSTEM.

PACKAGING SERVICE STATIONS IN MANY COUNTRIES

RADO PACKAGING SYSTEM

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British Patent Nos. 599,174,599,183 and 675,073 U.S.A. Patent Nos. 2,530,400 and 2,517,027
PATENTS IN 36 OTHER COUNTRIES AND FURTHER PATENTS PENDING

Chronic Labeling Ailments CURED MERCHELY

with Steigerwald

Heat Seal Labels

NO WATER

NO BLISTERED LABELS - NO WRINKLED LABELS

NO MESS - NO LOOSE EDGES - NO SMEARS





Label Dri Challenger applying

STEIGERWALD

Heat Seal Labels

On flat, round, or tapered containers including

HARDWARE SPOOLS DISHES, ETC.

STEIGERWALD HEAT SEAL LABELS without glue save labor and result in better labeling. Regardless of the size, shape or design of the product and the label—there's a STEIGER-WALD HEAT SEAL LABEL without glue for every labeling operation.

it's well worth a phone call to investigate labeling without glue...



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COLTON THE WORLD'S MOST COMPLETE



NO. 130 HAND OPERATED TUBE FILLER FOR PASTES AND CREAMS



NO. 150 GEAR TYPE TUBE FILLER FOR PASTES AND CREAMS



NO. 140 WORM TYPE TUBE FILLERS FOR PASTES AND CREAMS



NO. 110 WORM TYPE FILLER FOR LARGER TUBES OR IARS



NO. 450 HAND OPERATED TUBE CLOSER FOR CLIPLESS CLOSURE.



NO. 430 TUBE CRIMPER, FOOT

ONLY COLTON OFFERS A RANGE OF MACHINES COVERING EVERY MATERIAL FILLING REQUIREMENT, FROM LIQUIDS TO HEAVY ABRASIVE PASTES



NO. 420 TUBE CLOSER AND CRIMPER, POWER OPERATED.



NO. 104 MULTIPLE LIQUID FILLER WITH FOUR, SIX OR EIGHT NOZZLES.



NO. 107 LIQUID FILLER - BENCH TYPE, FOR



NO. 103 FILLER, CLOSER AND CRIMPER, FOR TUBES OR BOTTLES.

COLTON'S BRILLIANT NEW LINE INCLUDES THE RIGHT MACHINE FOR SPEED AND ECONOMY ON EVERY FILLING JOB



COLTON STRIP PACKAGING MACHINE



NO. 175 TUBE FILLER AND CLOSER, AUTO-MATIC, SINGLE OR



NO. 180 TUBE FILLER AND CLOSER, AUTO-MATIC, SINGLE OR TWIN.



NO. 126 MULTIPLE LIQUID FILLER



Send for catalog of nacoutical Equipment

ARTHUR COLTON COMPANY

DIVISION SNYDER TOOL & ENGINEERING COMPANY 3481 E. LAFAYETTE DETROIT 7, MICHIGAN

PLANT NO. 2-500 Bellevue, Detroit . PLANT NO. 3-Mancelona, Michigan Export Office-13 E. 40th St., New York City

Specialists in Pharmaceutical and Packaging Machinery for nearly 70 years



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I love Steepolator Coffee Bags* in the morning best of all-

"I'm one of those 'slow-to-awaken' people... and in the morning it surely is grand to be able to brew rich, full bodied coffee so easily and quickly. I do it with my Steepolator Coffee Bags. Of course, I think they're wonderful for making coffee any time."

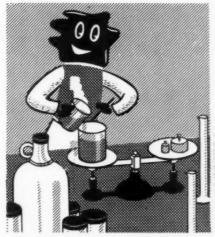


* Steepolator Coffee Bags are packed with 20 individual bags to the jar by Modern Coffees, Inc., 130 Newbury Street, Boston 16, Massachusetts. They are sold under many nationally known brand names.

Steepolator Coffee Bags are vacuum sealed with Crown Screw Caps and the well known Slip Rubber Ring. This combination provides unsurpassed protection. The Crown Screw Cap has the famous Deep Hook Thread that helps the closure to spin on easily on the production line . . . assures a secure seal . . . and comes off without a struggle on the consumer's part. The Slip Rubber Rings have a special lubricant that keeps them from drying out. They are cut extra thick, too, so that they won't cut through, and they seal off any slight irregularities in the jar lip. Crown Cork & Seal Company, Inc., Baltimore 3, Maryland. World's Largest Makers of Metal Closures.

Approved by millions of housewives

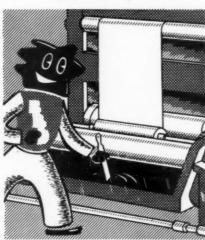
For flexographic ink service at its best...



Special ink formulations "tailor-made" for your needs by BBD's laboratory technicians.



BBD flexographic inks are sped to you from key distribution points.



"Shirt-Sleeve" service right at your press by BBD's flexographic ink specialists.

call

From problem to press...that's the scope of BBD's ink service to flexographic printers. Perhaps you're faced with the problem of printing a new stock — one you haven't printed before. Or, maybe, it's a ticklish color match... or an end-use specification that calls for an ink with unusual qualities. Just leave it to BBD's specialized experience and specialized research facilities to formulate the right ink for your needs.

Suppose you need ink in a hurry — BBD's efficient formula control system enables us to duplicate an ink order without delay . . . our strategically located manufacturing plants and key distribution points assure speedy deliveries.

And, finally, if it's on-the-spot help you need you can call a "shirt-sleeved" BBD field-man... a flexographic ink specialist with plenty of pressroom experience who can show you, right at the press, how to get better quality and better press performance with BBD INKS in the fountain.

If you are not now enjoying the benefits of this combination — BBD flexographic inks and BBD ink service — why not contact your nearest BBD office... or write direct to Bensing Bros. & Deeney, 3301 Hunting Park Avonue, Philadelphia 29, Pa.



Bensing Bros. and Deeney

Flexographic Ink Specialists

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Export: McLAURIN-JONES CO., New York
Canada: MANTON BROS., Toronto

Products move faster...

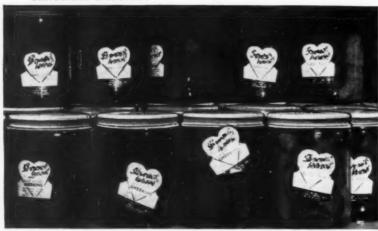
PERVENAC* Dry Labels



Notice the labels on the French's Mustard bottles, photographed on a retail shelf. As clean-looking as the moment they were applied. Now study the other picture, taken in the same super market (and retouched only to mask product identity). Labels askew . . . edges torn . . . glue smears on jar after jar.

when labels stay put!

Conventional Glue Labels



NASRUA



In this day of self-service selling, your product is on its own in the store. That's why progressive marketers are giving so much thought to labeling. And why you'll find the sales leaders, like R. T. French, using Nashua's PERVENAC Dry-Labeling, to insure good shelf display and spark impulse sales.

Labels printed on PERVENAC Dry-Label Paper go on neatly and permanently. They can stand the scraping action of carton dividers because the adhesive is firmly anchored to both label and bottle. Since glue is eliminated in PERVENAC Dry-Labeling, the paper stock is not weakened by moisture . . . labels are less subject to shifting, tearing, scraping.

Make sure your labels sell for you, not against you. Yes, and reduce labeling costs. With PERVENAC Dry-Labeling Paper, there's no downtime for adhesive clean-up — more bottles can be labeled per hour. Ask your printer to get samples from his Nashua paper merchant.

*Registered trademark. Manufactured under U. S. Patent No. 2,462,029

PRINTED FILM • WAXED WRAPPERS • BOX PAPERS • BOX STAYS • GUMMED PAPERS • HEAT SEAL PAPERS • FLOCKED PRODUCTS

PARTY PAPERS • PRINTED BANDS • CORRUGATOR'S TAPE • SEALING TAPE • MOISTENING MACHINES • TECHNICAL PAPER PRODUCTS

MODERN PACKAGING

April 1954, Vol. 27, No. 1



PROFESSIONAL STANDARDS govern the operations of the modern contract packager. In an air-conditioned room, this line is automatically forming and filling two-cell perforated strips with a hygroscopic pharmaceutical powder. Statistical quality control methods are employed to insure precise one-gram fill of the packages.

What about contract packaging?

Our survey discloses the broad range of contractor services, and suggests typical situations in which they may be desirable

The history of contract, or custom, packaging goes back many years, but because it is a type of business where anonymity usually is considered a virtue, many in the packaging field are not aware of the significant part this outside service plays in modern packaging production nor of the significant changes now taking place.

Today there is extensive evidence that contract packaging has become both a profession and a major type of business. The specialist character of contract packaging has advanced sharply in a number of directions. Plant and equipment facilities have been tailored to fit a range of widely varying needs. In numerous instances the contractor has helped develop new machinery, has pioneered new methods and has introduced new packages. His versatility and knowhow are becoming increasingly important factors in the packaging field.

Even those many product manufacturers who will always find it more practical to perform their own packaging can learn important lessons from the contract operator, who necessarily must concentrate on efficient production and at a fixed price in order to prosper. This is true because costs, which are a reflection of production efficiency, are frequently the deciding factor in a manufacturer's decision to use custom-packaging service. Basically, the progress contract packaging has made since the end of World War II stems from the fact that packaging operations under certain conditions are economically more practical when performed by the contract packager.

What these conditions are and how contract packaging can best be used are the subjects of this study, which is based on a survey that MODERN PACKAGING has made among contract



PHOTO COURTEST CUSTOM-PAR INC

POUCH-STYLE PACKAGES, whether for samples or regular small-unit quantities, are specialties of the contract packager. These typical pouches,

packagers performing all types of services in all parts of the country. Approximately 40 companies reported on their current operations. Of these, 18 are in the East, 10 in the Middle West, eight in the West and five in Canada. These plants, established strategically near to centers of production and distribution, range from large to small. Facilities range from standard equipment to special processing machines; many have storage and packaging areas equipped for humidity and temperature control, laboratories and departments for machinery or package development. Some contractors handle annual volumes amounting to millions of dollars.

Modern Packaging's survey of contract packaging includes all services customarily available, except the filling and loading of aerosols. This important and relatively new contract service is not discussed here because it is, in general, a field to itself. However, there is an indication that more contract packagers are planning to add aerosol packaging to the list of services they offer.

Trend to specialization

Because of the diversity of operations and facilities among the firms that were surveyed, generalizations can be carried only so far. However, most of the firms tend to classify themselves in certain distinct fields.

"See "Boom in Aerosols," Modern Packaging, Dec., 1952, p. 91; "Ultra-Low-Pressure Aerosols," Modern Packaging, Feb., 1954, p. 92; and "Aerosols," in the 1954 Modern Packaging Encyclopedia, p. 318. The major product categories are:

Pharmaceutical and personal products.

Chemical specialties, such as household, automotive and agricultural items.

Hardware, novelties and industrial parts.

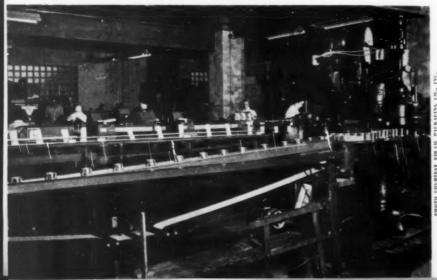
Food products.

Export packaging, bulk shipments. Contract packagers also tend to specialize in the types of containers handled and in the types of packaging lines operated. A majority of firms are equipped to render a fairly complete service and are set up to relieve their customers of most or all of their produet and packaging problems. Services available include receiving materials to be packaged, including bulk product, cartons, corrugated shippers, bottles, caps and other components; mixing and filling according to formula; parts assembly; packing and preparing for shipment; warehousing and, if desired, shipping in the name of the customer.

A few contract packagers confine their operations to filling only, or to export or military packaging. In general, however, contract packagers have tended to diversify their operations within their specialized fields and a few companies are equipped to handle practically all types of products or packages.

The product manufacturer, of course, should always weigh carefully the advantages and disadvantages of farming out his packaging as against doing it in his own plant. Nothing in this article is meant to imply that contract packaging is universally advantage.

MOBILITY is the watchword of the contract packager. Here equipment is mounted on skids and rollers so that it may quickly be rearranged into new packaging lines as the flow of products changes.





made of a variety of heat-scalable materials, contain liquids, powders, viscous and dry products. This type of packaging is often best farmed out.

tageous. But contract packaging is a special tool or added source of production that, when rightly used, can play an important part in the overall manufacturing-merchandising program.

One of the problems in employing a contract-packaging service is locating the company that specializes in a particular operation such as dry, liquid or viscous filling, sampling, hand operations and various out-ofthe-ordinary packaging chores. (See chart for types of services available from contract packagers, opposite p. 77.2) Almost all contract packagers are equipped to handle flexible packages and all of them are asked to take on and usually accept the so-called "difficult" packaging assignment involving non-standard packages and packaging operations.

The only other generalities that apply concern the reasons why contract packaging is advantageous to the product manufacturer. These, for the most part, apply in any type of contract-packaging assignment.

Generally, the product manufacturer will find contract packaging potentially advantageous where any one or a combination of the following production problems exist:

1. "Area packaging," or market coverage of areas distant from manufacturing facilities.

2. Intermittent operations or auctuating loads.

Pilot-line production for new products.

 Specialized packaging for which equipment or methods do not exist, or where volume does not justify special installations in the productmanufacturer's plant.

Contract-packaging operations are solving these problems in hundreds of ways for companies both large and small. The following examples of products and methods, illustrating the ways in which contract packaging is being used, vary widely, but the principles they emphasize are basic and can be applied in all types of packaging and for all types of products.

Area packaging

A logical consideration of contract packaging is indicated when a product-manufacturer's freight costs exceed his factory operational costs. Contract-packaging service on an area basis can provide the producer with opportunities to establish new markets in geographical areas not previously serviced.

A manufacturer of a food specialty, for example, discovered that his freight costs reached as high as 6 cents per unit; whereas the laboronly cost of packaging was less than 3½ cents. In addition, the delivery time from plant to customer amounted to as much as 12 days. The services of a contract packager located close both to sources of raw material and to important markets were employed. The active ingredient, constituting less than 5% of the finished bulk, was made at the parent plant and shipped

INGENUITY in mechanical development solves tough packaging problems. Here a special machine built by contract packager fills and caps small spiral-wound fibre containers for sampler mailer.



"See also the directory of contract packagers, classified according to types of operations performed, in the 1954 Modern Packaging Encyclopedia, p. 712.



PHOTO LOURILSY OLD EMPIRE MEG. CHI-MISTS, INC.

BIGGEST TUBE
MADE, 11½ in.
long by 2½ in. diameter, is handled
on specially designed filler built
by contract packager because no
standard equipment
could do the job.

one product alone. The factor of increased efficiency arising from continuing high-speed output is usually (but not always) implied in a contractor's operations. Theoretically, at least, the advantages he enjoys in handling a number of similar packaging assignments enable him to operate high-speed equipment on continuous schedules, whereas the same equipment operated in the product manufacturer's plant would finish a year's run in a week or a month and then remain idle.

In one instance a manufacturer of

MAILERS for sample prod-

uets frequently involve

small, odd types of prod-

to the contractor, where the formulation was completed, the item packaged and the finished stock warehoused and drop-shipped against sales

Sometimes a contract packager becomes, in effect, a branch plant. A West Coast manufacturer of an automobile cleaner, lacking distribution in the Middle West and East, wanted to enter these markets. He engaged the services of a contract packager in Cleveland. The contractor set up an operation identical to the one carried on in the West Coast plant of the manufacturer. The contractor in effect became the branch plant for packaging and his sales now exceed those of the manufacturer's own plant. A full-time representative of the manufacturer is provided office space at the contractor's plant to supervise receipt of materials, quality control and delivery. The contractor's facilities include a railroad siding to accommodate four freight cars and bulk storage tanks for 110,000 gal., plus 20,000-gal, underground storage capacities for flammables. Blending and drum-filling facilities are provided by the contractor.

A number of contract packagers with similar or even more extensive facilities specialize in the handling of waxes, polishes, lubricating and special-purpose oils, solvents and cleaning compounds. Located in strategic geographical locations, they offer important economic advantages from the standpoint of lower packaging and shipping costs.

Lower costs may also stem from the fact that a contractor will service similar or competitive products, enabling him to employ facilities on a scale that would not be practical for



PHOTO COURTESY MASON-KELLER CORP.

uet packagers specialize in this type of work, improvise equipment and train expert staffs to handle the manual operations.

PRODUCT FORMULA-TION is frequently a part of the contractor's service. Photo shows a corner of one contractor's department where over 300 different formulations are compounded prior to packaging.



PHOTO COURTEST WHICH CO.

a hair treatment sought out a contractor handling a competitive line and assigned his packaging for eastern markets to this contractor. Instead of a conflict of interests, lower packaging costs resulted for both product manufacturers. Similar experience is reported by a West Coast contractor who has specialized in packaging unit packages of sugar for a number of clients. The combined operations, plus package improvements, permitted the installation of facilities that are about twice as fast as any commercial machines in use.

The Canadian contract packagers, of course, provide area-distribution opportunities for product manufacturers who may have passed up the potential markets of our northern neighbor because of branch-factory problems or high shipping costs. The Canadian tariff may be considerably less for bulk materials than for a finished, packaged product.

One large Canadian contractor combines warehousing, distribution and custom-packaging service on a large scale. A number of American firms, finding their finished export-product cost too high to be competitive, send the basic product to this contractor for further manufacture and packaging. Finished products move directly from packaging to the warehouse for distribution on order.

Fluctuating loads

Contract packaging offers certain natural advantages to the manufacturer whose distribution is seasonal or cyclical, or where production is intermittent or a one-shot affair. Insecticides, plant foods, anti-freeze compounds and many similar specialties are frequently handled by a contractor



WAREHOUSING of packaging materials is another problem that the contract packager assumes. But free storage time, especially for bulkier items, is limited, usually to about eight weeks' supply. Finished goods storage, as a rule, is not included. Such warehousing is generally extra.

because production demand does not exist year-round. This creates problems for the producer that do not exist for the contractor, in that the latter makes a business of handling a number of fluctuating loads in a manner designed to keep his equipment going the year round.

Special promotions and samplings are frequently best handled by the contractor because of the problems that a sudden increase in the work load, plus temporary expansion of the work force, pose for the manufacturer. These obviously become more pressing because they come at a time when regular production may have to be at full schedule to keep pace with the increased business the promotion

or sampling is designed to create. This type of packaging is one of the biggest single functions of contract packagers generally.

A study of seasonal sales patterns often reveals a situation where contracting is strategic. A firm in the proprietary-drug field found 85% of its annual sales were compressed into five months. Plant-operating cost—that is, finished factory costs less cost of all materials—is only a small fraction of the promotional and sales cost for the product. Production problems normally multiply at a time when the small executive staff is heavily involved in peak-season sales problems. A large contract packager not only was able to absorb the fluctuating



COMPLETE SERVICE of contractor specializing in solvents and petroleum products includes bulk storage of products, container labeling and filling in sizes from 1 oz. to 55 gal., and shipment. Here 5-gal. pails of solvents are conveyed to plant-side siding, loaded into railroad cars and braced to meet exacting shipment specifications for the flammable products.

LIQUID PRODUCTS in pouch-style unit packages represent a big new trend in which many custom packagers have become experienced. Here a sticky, viscous shampoo concentrate, in three different sizes and formulations, is packaged for The Realistic Co. in single-use film envelopes, offering beauty shop operators far greater convenience than provided by the large bottle formerly used for this product.



load more economically, but also could undertake drop-shipment against sales at an average cost, on a labor-only basis, of less than 2% of the retail price.

Sample packages more often than not are handled by contractors, not only because of their one-shot characteristics production-wise, but also because they are generally of a size and shape not commonly handled on the producer's regular packaging lines. Strip and pouch packaging have become very big in this field. Production runs, moreover, may be very small or they may be enormous and demanding of the swiftest possible completion.

Last year, Lever Bros, sampled 18 million tandem packages of Surf in one giant promotion—one of the largest on record. Two contract packagers took the assignment in stride.

Most contractors are in an especially good position to handle sample packages. They are usually equipped with high-speed machinery for making, filling and sealing pouch- or envelopestyle flexible packages. Their labor force is trained for diverse assignments and they often do not have the more rigid skilled-labor set-up and union problems that the product manufacturer may have to take into account. Specialization in sampling work or promotions, often involving improvised machinery or extensive hand operations, gives many contractors the benefit of wide experience in this type of operation.

One contractor, for example, designed machinery for production packaging to prepare a better sampler mailer faster and at lower cost. This firm designed the mailer (for a face powder), received the orders, extracted coins, addressed the labels and handled the complete mailing of the semi-machine-packaged, tamperproof mailers. The same job if done in the producer's plant would have meant a large increase in the labor force and would have caused congestion and dislocation. Special package development and improvisation of machinery (without hope of repeat use on other, similar jobs) could not even have been considered by the prime producer for output that totaled only three months of production.

Pilot-line production

Many new ventures in packaging involve selection or development of a package, establishment of a packaging

MODERN PACKAGING's Guide to Contract Packaging

| Companies 1 | PRODUCTS PACKAGED | | | | | CONTAINERS HANDLED | | | | | | | | |
|---|-------------------|----------------------|----------------------------------|--------------------|-------------------------|----------------------|--|-------------------|---------------|---------------------------|----------|-----------------------------------|---------------------|---|
| | Foods | Personal Products | Hardware, Industrial Parts | Toys or Notions | Chemical Specialties | Flexible Peckages | Bottles & Jers | & Set-up Boxes | Metal Cans | Collap- sible Tubes | Capsules | Bulk or Shipping Containers | Inserts or Assembly | Specialties ² |
| ADVANCE PACKAGING CO. Chicago, III. | | • | • | • | • | | • | | | • | | | | Mixing: distribution, Wide range package sises |
| ENER CO. Buffalo, N. Y. | | | | | | Real Property lies | • | • | | • | • | | • | Liquids, pilis, powders |
| BARR & CO. Chicago, Ili. | | • | | | • | • | • | • | • | • | • | • | • | Liquids, continents, coemetics, |
| M. BISHOP CO. Burbank, Calif. | • | • | 1 | | 100 | • | • | | | • | | | | Bottled, begged, tubed products |
| ARGO PACKERS, INC. Brooklyn, N.Y. | • | • | • | | | • | | | | | | • | | Protective packaging of delicate parts |
| ENPRO CORP. Northfield, III. | • | • | • | 1000 | • | • | • | • | | | 1000 | • | | Mixing. Strip packaging. Laboratory a statistical controls |
| ENTRAL OHIO PAPER CO. Columbus, Ohio | | | • | 1 10 | | | | | | | | | | Machine parts |
| HASE PRODUCTS CO. | | | | | • | | • | 1 3 3 3 | • | | | | | Aerosols |
| UP BREW COFFEE BAG CO. Denver, Colo, | | | | • | • | | | • | | | | | | Sugar, toys, liquids, miscellaneous |
| URLEY CO., INC. Philadelphia, Pa. | | | | FIFE | • | | | • | | | | • | • | Somps, aprays, polishes, disinfectants, etc. |
| USTOM PACKAGING, INC. Newark, N. J. | | • | | | | • | • | • | | | | 8 | • | Small packages, flexible liquid packs |
| USTOM-PAK, INC. Cincinnati, Ohio | | • | | | • | • | | | 10: | | | | | |
| UMONT ENTERPRISES. INC. | • | • | | | • | • | | | | | | | • | Flexible liquid packs; email-run printing Liquids, powders, Tearstring at- |
| Englewood, N.J. YN CORP. New York, N. Y. | • | | • | • | | | • | • | • | | | • | • | Liquids, powders. Tearstring at- techments for wapping machines Heat sealing, assembly, colleting, |
| New York, N. Y. DLAW PACKAGING CO., INC. Glendale, N. Y. | | | | | | • | • | | • | | | • | | Pomulating and packaging of |
| NU-MATIC EQUIPMENT CORP. Burbank, Calif. | | | | | | • | | | | | | | 100 | dry mixes |
| VANS CHEMETICS, INC. | | | | 1000 | | | | | | | | | | Pills, tablets, all types of capsules Specialists in cold |
| New York, N.Y. ISCHER-WEHMANN CORP. | | | | | | | | | | | | | | permanent waving field |
| West New York, N.J. | | • | | | | 11- | - | | | | | | • | Strip packaging; pills, tablets, capsules. Catch cover crimping |
| EROME F. GOULD CORP. Brooklym, N.Y. OWELL WAREHOUSES LTD. | • | | • | • | | • | | • | | | | • | | Protective export boxing |
| Toronto, Ont., Canada | | • | • | | • | • | • | • | | • | | • | • | Complete packaging service & warehousing, shipping, billing |
| Geco P. O., Ont., Canada | • | • | • | | • | • | | • | | | | | • | Mixing, packaging, distribution |
| HURWICH CO. Berkeley, Calif. | • | • | • | | • | • | | | | 1.00 | | | | Dehydrated foods, pills, powders, small parts. Flexible liquid packs |
| VERS-LEE CO. Newark, N.J. | • | • | • | • | | • | | | | | | | • | Liquids, ointments, surgical items |
| EFFERSON CORP. Detroit, Mich. | | | • | | | • | | • | | | | • | | Military preservation and packaging |
| IQUIFOIL CORP. Alma, Mich. | - | • | | | | • | | | | | | | | Commetics |
| ASON-KELLER CORP. Roseland, N. J. | • | • | | | | • | | | | | | | • | Contoured unit and strip packaging |
| GUIRE & CO. Oakland, Calif. | | • | | | • | | • | | • | | 100000 | | | Petroleum packaging, aerosols. Squeeze bottle filling |
| ERCURY HEAT SEALING EQUIP. CO. Philadelphia, Pa. | | • | | | | • | | | 100 | | | | | Packaging in bags— all materials |
| BOSTYLE, INC. Birmingham, Mich, | 1 | | • | | | | 1 | • | BUT | | | | 100 | Automotive and elec- tronic parts |
| OLD EMPIRE MFG. CHEMISTS, INC. Newark, N. J. | | | | | • | • | • | • | | | | | • | Liquids, cintments, powders. Mfg. facilities. Laboratory controls |
| ACK-IT Newark, N.J. | | | | 225 7 | ** | • | • | • | | | | | • | Separate plants for pharmaceuticals and chemical specialties |
| EN-MAC-NYE CO. Akron, Ohio | | | | E 200 V | No. | • | | PE II | | | | | | Unit packaging of small items |
| RIVATE BRANDS, INC. Clifton, N. J. | • | | | | • | | | | | | | | • | Pharmaceuticals, Sampling, Mailings Chemicals in separate plant |
| RODUCTS PACKAGING, INC. Clevelend, Ohio | | | | 1 | | • | • | • | | • | | • | • | Automotive and household chemicals |
| EALED LIQUIDS CO. Bronx, N.Y. | | | Residen | | | | • | | | | | | | oils, waxes, insecticides, etc. Solvents - turpentine, alcohol, etc. |
| TLLIAM STEVEN CO. Los Angeles, Calif. | • | • | | • | | | | | | | | I RES | | Unit and Strip packaging |
| REFOLEX New York, N.Y. | • | | | | | | • | | | | | | • | Filling liquids and powders |
| UBED CHEMICALS CORP. Easthempton, Mass. | | | | | | | • | | | | | | | Liquide, paste, powders- including flammables |
| AN PELL CHEMICAL & SUPPLY CORP. New York, N.Y. | | | | | • | | • | | • | | • | | • | |
| VEST PENN OIL CO. | | | 1 | | | | A COLUMN TO SERVICE AND ADDRESS OF THE PARTY | A CONTRACTOR | | | A CANADA | | | Commercial & industrial chemicals. Squeeze bottle filling, aerosols Petroleum and automotive |
| Warren, Pa. FILCO CO. Los Angeles, Calif. | | | | | | | | - | | | | | | Petroleum and automotive specialties Petroleum, automotive, household chemicals. Formula to delivered pr |

This chart is based on information supplied by contract packagers who answered a Modern Packaging questionnaire. Modern Packaging does not youch for the accuracy of the information, and nothing here is to be taken as an endorsement by this magazine. Street addresses of companies may be obtained from the Buyers' Directory of the 1954 Modern Packaging Encyclopedia or by contacting Reader Service, Modern Packaging.

Most packagers offer a number of services. The reader is advised to consult individual firms for complete information in regard to services and facilities available, for a number of firms are generally qualified to take on any specific type of job. For example, most of these companies are equipped to handle sampling and mailing operations.

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line and testing of production schedules against anticipated and actual sales results. This situation poses serious problems for the new or small company and sometimes they are equally complex for the established firm. In such cases, contract service may be a wise choice in order to avoid heavy investment in plant and equipment during the period when the product's merchandising potential is untried.

A food processor faced with the problem of introducing a new type of dessert has turned over to a contract packager the job of producing the volume necessary for test marketing; at the same time the contractor is working out the packaging bugs and evaluating production equipment, pending determination of the product's initial marketing success. If the product succeeds, the processor has a ready made blueprint for establishing his own line. If the product fails, he has comparatively little to lose.

Similarly, contract packaging may be the answer for a small company just starting in business. For example, a one-man corporation with limited capital, embarking on the promotion of a specialty item, placed responsibility for production and shipping with a contractor. The new company avoided all fixed plant overhead and capital expenditures; it avoided decisions with regard to plant size, production and shipping, and was free to devote full energies to sales. The contractor, employing a mechanized line, produces a month's requirements in one or two days. Carriers, assured of reasonable quantities in handling this and a dozen or so other contracted products, could pick up promptly and handle shipments economically. The expense of delivery to a depot was avoided.

Specialty operations

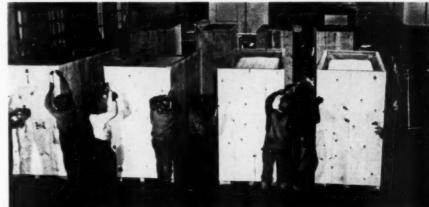
The foregoing situations all provide obviously good reasons for using contract services. However, performance of the unusual operation is the field in which the contractor really excels. He is apt to get the "difficult" assignment because it is the most costly and disruptive job for the product manufacturer to handle.

For this reason the contractor picks up concentrated know-how from many sources. His versatility in production techniques is a matter of necessity-he has to know materials and equipment to keep his lines running continuously and profitably. Incidentally, contract packaging for this reason has been and will continue to be an excellent "school" for the training of packaging men.

Not only is the contractor an expert in using standard equipment for many different types of containers, but he is also an innovator of new machines and new types of packages -some of which are adaptable for packaging in general and some of which remain specialties for the con-

For example, a leading manufacturer of household chemicals decided to introduce an item packaged in a giant-sized collapsible tube. The company's equipment did not include tublbs. On another job 26 million metal nuts were packaged in a period of six weeks by means of a specially developed oven and conveyor system for processing and dipping the nuts in AXS-673.

A contractor devised a machine operation for packaging candles which enabled his client to clinch a large Government order. The machine-designed, built and in operation within five-weeks' time-packages candles at the rate of 150 a minute. With little application for normal purposes, the machine was the only means of efficiently and economically meeting the rigid requirements of quantity and delivery date. The operation is a good example of the in-



EXPORT PACKAGING is a specialty of one sector of the contract field. Packed according to military specifications, these diesel generators are preserved internally with desiccants and barriers and sheathed in expertly designed wooden crates are made ready for overseas shipment.

ing facilities and inquiry determined that automatic equipment for the outsized tube was unavailable. A contract packager was called upon for advice. His answer was to build a special machine for the job. He did and has been running giant-sized tubes almost continuously.

His tube-filling machine, handling tubes up to 11½ in. long and 2½ in. in diameter, employs special aluminum tube holders, is fed via hopper from a 1,200-gal.-capacity tank, has pre-folding jaws and applies a special seal. Output is 12,000 tubes per 7-hr.

Another contractor developed a system for mechanically wax dipping Method IA-2 packages weighing 35

genuity and versatility of the contractor, whose basic operations are for the food industry and whose normal packaging of food items in any one week might include cake mixes, instant coffee, seasonings, shredded cocoanut, dietetic preparations, syrups and the like, as well as soft goods, ball-point pens and a wide variety of sample packages.

A chemical producer, faced with the problem of introducing a new plant food, found a contractor who specialized in foil pouch packages. The contractor is currently packaging two-million packages of the plant food, using a machine especially developed for filling and sealing the (This article continued on page 167)

Mug appeal

With pastel-colored plastic beakers, Sealtest puts a new slant on re-use premium promotion of cottage cheese



APPEALING PACKAGE of polystyrene with snap-on lid can be filled on regular filling equipment. Circular paper label provides flexibility for local designations as well as product identity and place for familiar Sealtest trademark.

Do YOU have a MUG like this? This is the eye-catching and amusing slogan for the appealing polystyrene plastic mugs filled with Sealtest cottage cheese currently being used nationally as a special Lenten promotion of National Dairy Products Corp.

These distinctive packages, which mark an interesting departure in the molded plastic re-use package long familiar in this field, are being backed by the largest advertising and promotional program ever used by the company for this product, Bright and arresting store material and special displays in all leading markets are supported by national comics, newspaper black-and-white advertising and Sealtest's "Big Top" show on television.

The effectiveness of re-use containers for the promotion of cottage cheese has been well demonstrated previously in the dairy field by the use of glass tumblers, molded plastics and the outstanding sales successes of the colorful aluminum tumblers introduced a few years ago. The Sealtest mugs offer a fresh idea in a field that is constantly in need of new gimmicks to make consumers want to collect containers in sets of six or 12 so that they will keep on buying cottage cheese.

A year ago, between April 20 and May 30, 1953, Sealtest market tested the Lenten mug in a typical urban area with spectacular results—a 200% increase. On a national basis this year, indications are that results will be equally impressive, with Sealtest units in many geographical areas expressing the conviction that "almost everybody will have a MUG like this!"

The durable, heat-resistant polystyrene mugs with their convenient handles seem especially appealing to families with children—safer for the baby just learning to drink by himself. They are closed with a lug-type snapon lid which can either be used for reclosing or double as a coaster when the mugs are re-used as drinking cups. Use of the cap as a coaster explains the prongs on the under side which help to keep the coaster from sticking to the mug or glass.

The six attractive colors for the mugs were carefully market tested to assure maximum eye and appetite appeal as a background for cottage cheese. The muted shades are aqua, rose, chartreuse, gray, green and cocoa. Each mug holds 10 oz. of regular cream cottage cheese, sold at a retail price ranging from 31 to 33 cents. Regular 12-oz. paper packages of cottage cheese sell around 23 to 25 cents, showing that the consumer is willing to pay the premium of 10 to 12 cents to get the mug.

The design of the mugs to Sealtest's

^{*} See "Super Premium," Modern Packaging, Feb., 1951, p. 94.

specifications was planned so that packaging would pose no special production or filling problems to the various Sealtest units. Regular filling lines were quickly geared to the special operation. The matching snap cap also seems an improvement over improvised closures that have been used on some other types of re-use cottage cheese containers. The snap caps are applied by hand in most of the units. However, for the New York metropolitan area, where large volume is imperative, an automatic capper is being used. The capper works on the vacuum-suction principle and operates in conjunction with a two-line filler. By suction, the caps are placed on the filled mugs and are snapped on with pressure at speeds of about 60 to 70 per minute.

The caps are applied directly over the filled containers. No paper liner is necessary. A circular paper label applied to the top of the cap offers flexibility to carry local designations for each Sealtest division as well as product identity and trademark.

The label also gives the direction, "To open push up at arrow." The arrows are molded in the top surface of the cap directly above the lugs which assure the snap fit. Ease of lifting the caps for consumer use was an important feature of the design, since re-use is the strong selling point. Promotional material stresses re-uses of the mugs as picnic, party and children's favorites and as very useful refrigerator containers.

For shipment the filled mugs are re-packed 24 to each corrugated carton in which they were shipped from the plastics supplier. The shipping cartons are equipped with corrugated dividers and fillers that protect the handles of the mugs.

The copy for Lent emphasizes the freshness, economy and deliciousness of the high-protein dairy food and its many special uses for Lenten meals promoted widely in dairy departments and high-traffic spots in all markets.

The plastic mugs are being made available through home delivery as well as retail food stores carrying the Sealtest line.

CREDITS: Molded mugs, Peoria Plastic Co., 215 Taylor Ave., East Peoria, Ill. Labels, A. M. Steigerwald Co., 910 W. Van Buren St., Chicago 7. Filling equipment, with automatic capping adapter, Triangle Packaging Machinery Co., 6633-55 W. Diversey Ave, Chicago 34.

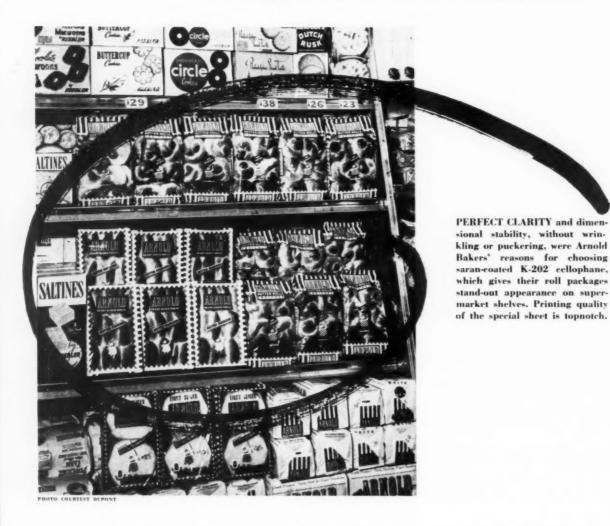


SIX COLORS were market tested to assure maximum eye and appetite appeal as background for cottage cheese. Handled design of unbreakable plastic was chosen because of its popularity for families with small children.

IMPRESSIVE DISPLAY in dairy departments spotlights the Lenten promotion. Market tests showed sales increases of 200% with new container.



SARAN-COATED



A fter a long period of shortage, during which it was more or less a packaging curiosity, saran-coated cellophane is now rapidly gaining an accepted place in the field of transparent packaging. Increasing supply and broadening applications are helping to delineate the fields in which its special properties may be used to advantage. Along with polyethylene, aran resin as a coating (actually a modified vinylidene chloride polymer) promises to strengthen cellophane's position as packaging's most widely useful transparent film.

Saran-coated cellophane is best

known in the field as K-202, the designation given by its original producer several years ago. This producer is now supplying the film using his own modification of the saran resin, in substantial quantity, and plans to double production through increased facilities in the second quarter of 1954.

A second cellophane producer is reported testing his own version of saran-coated cellophane and getting ready for full-scale production.

Combination of properties

Saran-coated cellophane combines some of the best properties of saran film with the most desirable qualities of cellophane—and in doing so overcomes some of the limitations of each material.

Saran film has long been known for having the lowest rate of water-vapor transmission of any transparent film commercially used in packaging, as well as for its strength, dimensional stability and resistance to acids, alkalies, gases and the effects of aging. These are points on which ordinary, uncoated cellophane is weak.² But as a film saran has been restricted in application because of its relatively high cost, special heat-sealing requirements, and above all—a weakness which it shares with all other straight \(\frac{2}{5\text{ Fee}} \) chart, "Properties of Packaging Films," pp. 108–109, 1954 Modern Packaging Encyclomedia.

¹ See "Polyethylene-Coated Cellophane," Modern Packaging, March 1954, p. 293.

CELLOPHANE

It combines the economy and easy-handling characteristics of cellophane with protective properties of the plastic resin

plastic films to date—inability to handle readily in high-speed automatic packaging machinery.

When applied as a thin coating to cellophane, saran loses some of its water-vapor resistance. But it retains most of its other properties almost unimpaired—and, because of the relatively small quantity spread as a coating, its cost comes down to a practical level. Because of the thinness of the coating, heat-sealing poses no difficulty. And with the "body" provided by the cellophane, machine-handling properties of the coated material are

as excellent as those of cellophane itself, it is reported.

When properly coated with a nitrocellulose lacquer, as it has been for many years in the popular "MS" types, cellophane is itself, of course, a good water-vapor barrier. When saran is substituted for the nitrocellulose coating, the WVT rating is at least as low, and the other advantages mentioned above are gained.

In fact, in some specific applications (see graph), a single ply of K-202 cellophane (two sides coated with modified saran) has proved the



EXTRA STRENGTH of sarancoated film and its fine aging qualities protect National Biscuit cracker and cookie packages from break-throughs at delicate corners usually serious trouble spots.

GREASE RESISTANCE makes X-202 ideally suited to salted nuts and other cocktail snacks, Sarancoated cellophane is impervious to fats and oils which might break down ordinary coatings.



GUIDE TO CHIEF USES FOR SARAN-COATED CELLOPHANE

(Manufacturer's information

| (Manufacti | urer's information! |
|--|---|
| PRODUCT | REASONS FOR USE |
| Dried fruit | Prevents "sugaring" due to low WVT and resistance of coating to deterioration. |
| Crackers and biscuits Potato chips Nut meats | Better appearance and adequate protection; not generally used if double-wall film is needed for durability. |
| Specialty breads, sweet doughs and cakes | Better appearance and protection. |
| Popcorn Corn curls and other snack items | Better appearance and adequate protection; duplex film may be required. |
| Marshmallows and other types of candy | Mostly used where single-wall construction provides adequate durability but insufficient protection. |
| Chewing gum | Suitable as a dimensionally stable carton overwrap for improved protection and appearance. |
| Soap | Intended to provide better protection against loss of perfume and moisture. |
| Hosiery and lightweight textiles (underwear, lace, linens and narrow fabrics). | For improved appearance and to provide heat-sealing film which is much less sensi- tive to the effects of yarn finishes than MST. |



NO ABRASION of coating, which might impair water-vapor protection, occurs with saran-coated cellophane when used for highly abrasive dehydrated foods like Mrs. Grass' Noodle Soup. Heatsealing is fast and extra-strong.

equivalent of a double-wall MST in water-vapor resistance.

One limitation of regular coated cellophanes, not generally recognized, is that on long exposure to extreme conditions or to unusual product ingredients, the coating tends to break down and lose its effectiveness as a barrier. No such deterioration is found in the saran coating under these conditions.

All that need be said about the printing properties of saran-coated cellophane is that it prints as well as cellophane and by any graphic process conventionally used on cellophane material.

All this does not mean that sarancoated is going to outmode other coated cellophanes. Conventional coated cellophane is perfectly adequate for the vast majority of the jobs it is doing, and in any such case it would be a great mistake to pay approximately 80 cents a pound (the present price for 450-gauge, two-sides-coated K-202—the only grade of saran-coated cellophane so far announced) as against 63 cents for conventional 450 MSAT. What it does mean is that the sarancoated film offers an extra margin of protection for those products that need it and can justify the heavier cost—and that new fields of packaging formerly closed to cellophane may be opened.

Performance

Satisfactory performance of the film has already been demonstrated on standard overwrapping machines, bagmaking machines and forming and filling machines. On bag-making and forming and filling machines Teflon (tetrafluoroethylene resin) treatment (a plastic anti-stick coating) is usually required and, though not essential, is recommended on over-wrapping machines.

The long-lasting qualities of the Teflon coating are illustrated by a standard pouch forming and filling machine which ran K-202 for five months. Back-seam sealers of the sliding contact type were coated with white Teflon enamel and produced 1,000,000 units before requiring replacement.

On most overwrapping machines, the film will operate satisfactorily, it is said, without modification in machine design. In all cases where heat is used to seal K-202, sufficient heating capacity must be available to increase effective sealing temperature 10 to 15% above the normal range for sealing MST-53. It is important for the user to note that the film cannot be heat sealed to other types of cellophane.

Regular wax-coated paper labels such as those used on standard types of coated cellophanes are not recommended for use on K-202. Labels must have a thermoplastic resin-type

PROPERTIES OF SARAN-COATED CELLOPHANE°

(450 K-202, coated two sides with a modified saran resin)

| Yield | |
|--|--------------|
| sq.in./lb./mil. | 19,500 |
| Tensile strength, | |
| lb./sq.in. | 7,000-13,000 |
| Elongation, % | 25-50 |
| Tearing strength, (Elmendorf) | |
| gms./mil. | 7-15 |
| Folding endurance, | > 15.000 |
| M.I.T. | > 15,000 |
| Heat-sealing range, deg. F. | 225-350 |
| Water-vapor permea- bility, gms/hr./100 sq. meters at 103 deg. F. (53 mm.Hg.V.P.D.) | 60-90 |
| Permeability to gases (oxygen: carbon dioxide) | Very low |
| Resistance to strong acids | Poor |
| Resistance to strong alkalies Resistance to greases and | Poor |
| oils | Impermeable |
| Resistance to organic solvents | Insoluble |
| Resistance to Sunlight | No effect |
| Dimensional change at high R.H., % | 2-3 |

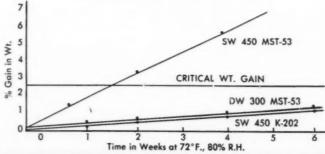
^oManufacturer's figures.

coating in order to obtain acceptable adhesion to the film.

The case histories that have come to light so far help to show where saran-coated cellophane logically fits in the packaging picture.

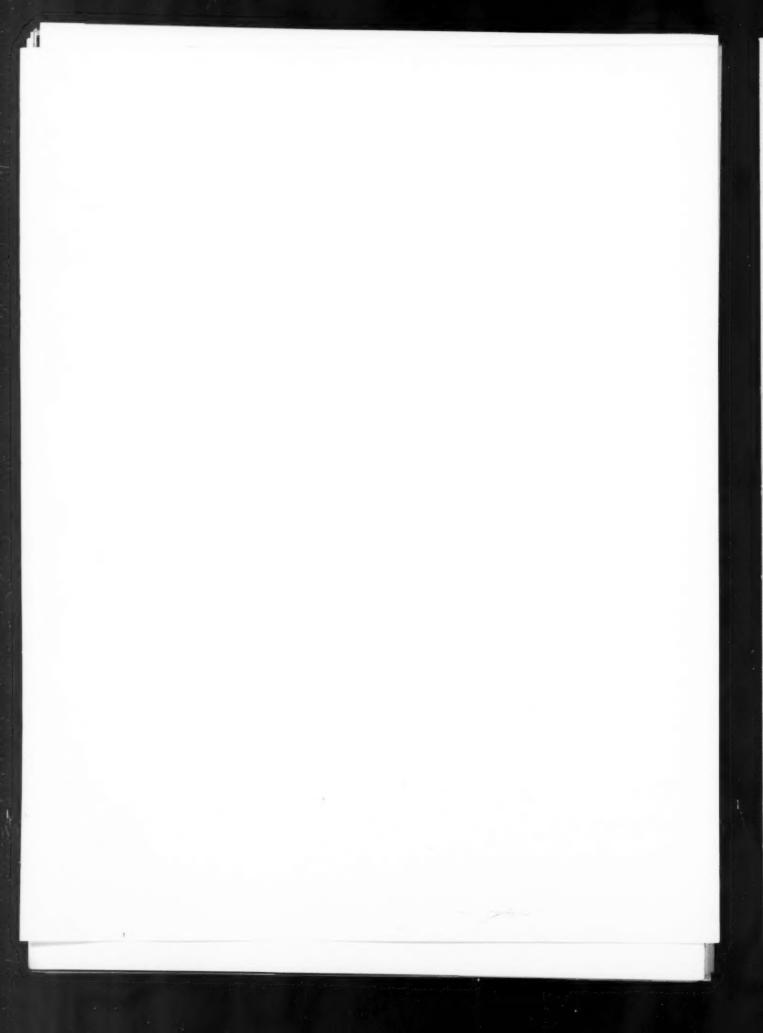
In addition to the dried-fruit field, where it started back in 1950, two other product fields are today showing considerable interest in the film: baked goods (crackers and biscuits, specialty breads, sweet doughs and

PROTECTION OF CHEESE CRACKERS



WATER-VAPOR TEST on cheese crackers shows that single-wall 450 K-202 cellophane (saran-coated) was approximately equivalent in protection to double-wall 300 MST and far better than single-wall 450 MST.

fHIS IS K-202, a 450-gauge cellophase control on both sides with a modified saran resin. It combines the toughness, grease resistance and dimensional stability of saran with the clarity and fine machine-liandling qualities of cellophane.



cakes, as well as hard, abrasive products such as popcorn, corn curls and other snacks) and candy.

Dried fruits

When mere pilot-plant quantities of the film were available, it was distributed first to the dried fruit industry where some authorities immediately hailed it as the best type of cellophane available for the stringent protective demands of their products. California Prune & Apricot Growers Assn., previously reported by Modern Packaging as one of the first users of the film, was able to achieve the necessary visibility for its Sunsweet line of dried fruits for self-selling without objectionable "sugaring."

Sugaring, or whitish crystallization of sugar hydrates on the surface of the fruit, has been a serious problem in the industry because it gives the product an objectionable appearance which might be mistaken for mold growth.

In his 1951 report in Modern PACKAGING, Dr. T. A. Schwarz, of the Sunsweet organization, declared that sugaring, while difficult to induce experimentally, was apparently a result of moisture changes induced by the variations in the vapor-pressure gradient due to changes in temperature. Thus, the situation is a little more complex than straight watervapor transmission. Dr. Schwarz reduced this question of WVT in proportion to the vapor-pressure gradient to a formula, and found relative values as follows for packaging materials used with dried fruits:

| | Transmission value |
|--|--------------------|
| 300 MSAT cellophane monofilm 300 MSAT cellophane | 8.7 |
| duplex | 3.5 |
| Polyethylene 2-mil | 1.1 |
| Pliofilm 140 N. | 1.0 |
| 450 K-202 cellophane | 0.9 |
| Saran 100-gauge | 0.15 |
| | |

Thus, in this particular application, single-wall K-202 was nearly four times as effective as a duplex bag of conventional moisture proof cellophane, and approximately the equivalent of plastic films costing considerably more. Degradation of the MSAT coating in contact with the sugar content probably had something to do with the results.

⁸ See "Sunsweet and K-202," Modern Packaging, April 1951, p. 122. The saran-coated film is now being used by other dried-fruit packagers, including Rosenberg Bros. for their Sugaripe brand. It is printed and run on the same high-speed machinery ordinarily used for cellophane.

Abrasion resistance

In some fields today, saran-coated cellophane has proved advantageous primarily because of its ability to withstand abrasion from hard, scratchy products. In some cases, including products high in fat or shortening content-such as nut meats, frenchfried pork skins, etc.-the abrasive breakdown of the conventional cellophane coating was aided by chemical action of the fats. The saran coating resists both oils and abrasion. Although the abrasion might not be enough to break the film it could easily deteriorate the coating and hence the protection.

I. J. Grass Noodle Co., Inc., Chicago, is successfully using K-202 pouches for packaging the components of its noodle soup product—a highly abrasive combination of dehydrated vegetables and seasoning. As another example, Buckeye Foods, Williamsport, Pa., is packaging its rough-surfaced salted peanuts and cashews in four ounce bags. Previously, the company used a double-wall MST bag.

As a secondary advantage, the I. J. Grass Noodle Co. discovered that pouches of K-202 seal faster on rotary and jaw-type sealing equipment than pouches of 450 MST-53 cellophane.⁴ An increase of from 70 to 110 seals a minute has been made possible, the faster speed resulting from shorter dwell time.

Dimensional stability

In many recent applications, sarancoated cellophane has been chosen primarily for its appearance factors. One of its most notable qualities is that the saran coating stops the drying out and uneven shrinking of regular types of cellophane which in time produces wrinkles, puckers and even shrinkage to the extent that a tightly wrapped film might break. The sarancoated film is said to preserve a clear, unwrinkled, dimensionally-stable surface indefinitely.

Two typical manufacturers who are benefiting from the dimensional stability of the film are the National Biscuit Co., New York City, and Arnold

⁴ See "Solution of a Sealing Problem," MODERN PACKAGING, April 1953, p. 162. Bakers located in Port Chester, N. Y.

National Biscuit is using bags fabricated from K-202 on two products, Lorna Doone Shortbread and the Oreo Creme Sandwich, Previously, the company tried both duplex bags and 450 MST in a single wall, more to prevent the sharp corners of the packages from scratching the moistureproof coating. When running regular MST cellophane, the production department had to be wary of tight wraps because of the film's tendency to shrink after long storage, but with K-202 the danger is minimized because of the film's greater dimensional stability. In National Biscuit Company's experience with these two products, K-202 is about the equivalent of a duplex 300 MST bag.

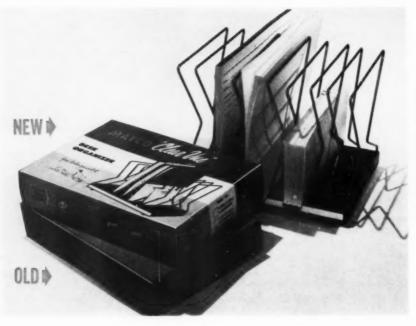
The second company, Arnold Bakers, finds that bags of K-202 keep butter rolls and barbecue buns fresh longer and also keep their shape better for more winning store displays.

Arnold is an example of the many companies that found a duplex bag, in their case, could be eliminated by using a single-wall K film. On both (This aricle continued on page 176)

SUGARY PRODUCTS are found to benefit from saran coating's immunity to attack by sugars. This prevents degradation of moisture protection during shelf life. Smoothness and clarity also add to quality impression of produce.



PICTURE-STORY



ADDED SALES PUNCH of new desk-organizer package is evident in this comparison of old and new cartons. The old package carried no illustration or copy except on end panel shown; the new one puts all six surfaces to work, and makes the utmost of two colors with line, halftone and Ben-Day illustration. Note on new package how color is indicated by simple check mark on end panel.

Even for types of merchandise which are not sold on a strictly self-service or even self-selection basis, a well designed package can expedite matters for the clerk and save time for the purchaser by self selling the product. If this aim can be accomplished without the need for supplementary store display material, valuable space thus saved may be utilized for additional merchandise lines, paving the way to increased sales volume.

Recognition of these basic but often disregarded fundamentals lies behind the new packages recently adopted by Mayer Mfg. Corp., Chicago, for a group of three desk accessories sold under the Mayco trademark. They include the Roll Master memo-pad holder and two types of desk organizers for vertical storage of envelopes, file folders, etc. All three products are now supplied in end-opening folding cartons with an integrated family design which not only clearly pictures and describes each item, but also shows how it is set up for use (the desk organizers are packed disassembled to conserve space) and does an effective related selling job on other items in the line.

In designing the new boxes, Robert E. Wright, Mayco's director of sales, gave special consideration to the fact that the average retail stationery, department or office-supply store has only a limited number of clerks and that any part of the selling function which can be taken over by the package itself contributes to more profitable operations. Accordingly, he set out to develop a group of "picture packages" which could serve as their own counter displays, fully capable of attracting favorable attention by the prospective buyer and establishing essential product sales features without clerk assistance. This was accomplished by putting all six surfaces of each package to work, utilizing a combination of color, typography, line drawings and halftones to achieve the desired result.

Although economically printed by letterpress process in only two colors—black and light brown—on 30-pt. patent-coated folding carton stock, the new Mayco packages show attractive color variation. The effect has been accomplished through skillful employment of white space, reverse and positive line drawings and lettering, and incorporation of Ben Day screened areas which are used stra-

tegically around one edge of each carton as well as for the Mayco name on the principal display panel. In each instance this panel is kept uncluttered, highlighting a large vignette-type halftone of the desk accessory in conjunction with prominent type matter identifying the product and a simple atmospheric line illustration showing it in use. The display panel itself makes no attempt to provide detailed information concerning the item; its essential purpose is to contribute product visualization and, through pictorial suggestion, create buying desire.

For the two styles of desk organizers, the bottom panel of the carton is the "workhorse" section of the package. Against a wide color band carried completely around the box and by means of brief directions accompanied by easily followed line drawings, this panel shows how the accessories are quickly assembled without tools then goes on to list and depict important sales features, Remaining space on this panel-about two-thirds of the entire area-includes halftone vignettes of the other products in the Mayco desk-accessory line, together with a brief outline of their sales features and the colors in

PACKAGES

Office accessories are seldom sold by self-service,

but Mayco's new cartons are definitely self-selling

which they are available. By displaying duplicate packages so that both major panels are exposed, as in an accompanying photograph, the stationery or department store can combine a large illustration of the accessory with detailed instructions and illustrated information concerning companion products in the line.

On the Roll Master memo-pad package, the two principal side panels, identical in design, carry the large halftone product illustration, while the bottom panel is utilized for detailed information on reloading the holder with a standard addingmachine roll and sales copy concerning the two desk organizers. The previous folding carton for this item also carried a product illustration and

sales copy, but there was no tie-in with other items in the line permitting an integrated display and selling effort. The desk organizers were formerly supplied in plain orange-colored folding boxes with all identification and a small product illustration confined to the end flaps. On these boxes the color designation of the product was indicated by means of a rubber-stamped notation on the flap.

Side panels and locking flaps of all the new cartons are put to effective use. On the desk organizers, side panels bear general sales copy and line illustrations showing typical users of these accessories—executives, stenographers, lawyers, etc. One end flap carries, in addition to product information, the name and address of the manufacturer, while the other flap includes the name of the item and small white squares which are marked at the time of packing to designate the color of the product within. This arrangement eliminates the rubber-stamp procedure formerly used.

With the new family of pictorial packages, Mayco is gearing its merchandising efforts to a formula now being used successfully by more and more companies, whether they are selling peanuts, pretzels or polishing cloths: Use the package to attract—then inform—and you've made a sale! Credit Caeding cartons, Justrite Box & Label Co., Inc., 1313 W. Division, Chicago.



FRONT AND BACK VIEWS of three new Mayeo packages are shown above and below. Drawings and halftones highlight not only the selling features and assembly directions but also cross-sell other products in the line.





Dry-packed

This biggest single



THREE OUT OF FOUR housewives use cake mixes today. Trend is to more and more "convenience" foods for working wives and homemakers eager for prepared foods that mean less time in the kitchen.

From the packaging standpoint, the most significant segment of the \$67-billion food industry—historically, technologically and in sheer volume of packaging materials used—is that which can be roughly classified as "dry-packed" foods.

By this is meant that broad group of packaged grocery-store items which includes all the cereals, flour, prepared mixes, macaroni products, soup mixes, tea, coffee, sugar, spices, dessert powders, dried milk, etc.practically everything in the food line that is packaged dry and free flowing, either in powder, granular or flake form. This group has been singled out for special consideration in our monthto-month study of packaging progress by industries because of the similarity of packaging problems in this field as distinguished from other large food groups, such as meats, frozen foods, canned goods and produce, which differ widely in their handling and packaging, and are therefore separate subjects in themselves, not considered

Reasonable estimates indicate that consumers are currently spending for the dry-packed foods about \$8 billion per year—more than for any of the food categories mentioned above with the exception of meats. And although meats are twice as big in dollar vol-

BUILT-IN conveniences of prepared foods greatly influence packaging. Powdered egg white for angel-cake mixes must be kept separately from four for addition of water and beating also for more complicated protection. Glassine, aluminum foil and polyethylene combinations are effective barriers.



foods

grocery segment of the \$67-billion food field is at once

packaging's biggest customer and its favorite problem

ume, their packaging outlay is only about two-thirds as much. With an estimated annual packaging bill of \$1½ billion, the dry-packed foods as a group are probably the biggest single market that packaging has.

Historically, it was the packaging of dry-packed foods—flour, cereal, sugar, salt—in neat, clean, protective packages that first took bulk goods out of the barrel and put it on store shelves in convenient sales units that could be widely advertised and merchandised under brand names, assuring quality for which the makers were responsible.

The success of the pioneers such as Domino Sugar, Aunt Jemima pancake flour, Kellogg Corn Flakes, Jell-O, Baker's Cocoa, Chase & Sandborn Coffee, Morton's Salt and others—many of them subjects of our recent *Packaging's Hall of Fame* series—is too well known to require repetition here. Packages such as these were the basis for the very beginning of modern food-store merchandising.

And, technologically, the field of dry-packed foods has probably contributed more than any other to the development of improved methods of protective packaging at low cost, particularly in the realm of paper, films and the various combinations of flexible packaging materials. Most of these products are relatively low cost and highly competitive. They often require a high degree of package protection to assure preservation of contents over comparatively long storage periods-yet can stand only the lowest packaging costs commensurate with product and merchandising requirements. Packagers in other fields can learn much from dry-packed foods.

Elaborate processing to provide the "built-in," labor-saving conveniences demanded by today's consumers in

the form of the prepared cake mixes, soluble coffees, soup mixes, etc., imposes continually challenging new problems of packaging in this field.

Consumption of these newer "convenience" foods has been increasing by leaps and bounds since World War II. Working wives and homemakers have been eager for prepared foods that mean less time in the kitchen. The scarcity—almost non-existence—of domestic help has also contributed to the popularity of foods that require little or no preparation for serving. The U.S. Department of Agriculture's Bureau of Human Nutrition and Home Economics has found that ready-to-serve foods can reduce the

daily time required for preparation, cooking, serving and cleaning up after meals for the average family of four from 5.5 hrs. to 1.6 hrs. Consumer demand for more and more prepared foods is indicated by market studies in the dry-packed-food field. According to trade estimates, more than three out of four homemakers now generally use prepared cake mixes in preference to home recipes and 50% use prepared mixes exclusively. Coming generations may never know how to make a cake from scratch, so simple have the makers of the prepared mixes made it to whip up a cake, biscuits or cookies simply by adding milk or water to the contents of a package.

LABORATORY RESEARCH for evaluating package performance and materials has been modern industry's answer to low-cost protective packaging. In weather room at General Mills, finished packages may be stored at temperatures and humidities approximating any climate.



¹Figures are based on Topics Publishing Co.'s studies on "What People Spend for Products Sold in Grocery Stores," and Modern Packaging's own "What Does Packaging Cost?" March, 1954, p. 125.



INDIVIDUAL SERVING packs continue to gain favor in the cereal field as indicated by what Kellogg's call "Snack-Pak," containing six individual packages—two each of three types of ready-sweetened cereals for use as snacks or at the breakfast table. Cellophane overwrap features circus clown, animals and "Wild Bill Hickok."

More than 25% of the coffee sold in the United States today is soluble and the rate of increase is estimated at 5% per year. Americans are spending nearly \$96 million a year for packaged gelatin desserts and prepared puddings and soup mixes are now up to \$18 million.

All of this food processing involves constantly new additives and ingredients with varying physical and chemical properties, requiring a wide range of package protection—quite different from the first dry-packed cereals, which were relatively stable, uncomplicated products.

This means continuing research in packaging materials and a constant

search for faster methods of production to provide the most efficient packages at the lowest possible relative cost.

Very good examples are the present angel-food cake mixes, which demand protection for powdered egg whites different from that for the flour mix. To assure proper preservation of both and to keep the powdered egg whites separate for beating, a new type of component package has been developed, usually a carton containing two envelopes: one designed to keep the moisture content of the flour at just the right level and the other to prevent deterioration of the egg whites. In a typical case, the flour

envelope is a lamination of printed paper and polyethylene, while glassine, aluminum foil and polyethylene are combined to give the more complex protection required for the powdered egg whites.

Dry milk powders provide an outstanding example of the protectionvs.-cost problems that this field has met and licked. Dehydrated milkhighly hygroscopic and having, in most cases, some fat content-is terrifically difficult to preserve, yet if it were to reach the low-income mass market for which it was originally intended, packaging cost had to be at an absolute minimum. Even the hermetically sealed metal can or glass jar-which obviously would do the job-had to be ruled out so far as this market was concerned. With the use of pouchtype packages made of relatively lowcost laminated and coated materials, the milk companies have met this problem so well that retail sales of powdered skim milk have risen from six million pounds annually in 1949 to well over 100 million pounds today. And in addition to low-cost protection, there is an important convenience feature in that a pouch can be sized to hold exactly enough powder to reconstitute a quart of fluid milk, eliminating all measuring.

It was the field of dry-packed foods that first led to the establishment of procedures for the testing of packaging characteristics and to methods of evaluating package performance.

One of the first laboratories ever established for this purpose was that of General Foods Corp., started in 1934.3 At that time, during the depths of the depression, everyone was trying to cut corners and many claims were being made for packaging materials that could not be substantiated. Literally carloads of packaged foods were lost because of package materials that did not meet requirements. And up to that time there were practically no scientific standards for evaluating packaging materials before purchase and no means of pre-determining how they would act in high-speed machinery.

General Foods became aware of the situation through increasing returns of packaged products from grocery stores—fibre containers of cocoa showing spots where grease had

REVOLUTIONARY progress in high-speed filling of light, dry, free-flowing products has been made with the installation of new air-pressure net weighers capable of accuracies with \(\frac{1}{16}\) oz. at speeds to 80 per minute. Photo shows use for Kraft macaroni and cheese dinner.

[&]quot;See "Dry Milk: Problem Child," MODERN PACKAGING, July, 1951, p. 70, and "Packeted Dry Milk," MODERN PACKAGING, Jan., 1953, p. 112.

"See "General Foods' Inside Story," by L. W. Elder, MODERN PACKAGING, March, 1947, p. 117.



ALUMINUM FOIL packages for Junket Freezing Mix and Junket rennet custards are a new attraction among prepared dessert packages. Use of foil gives added protection and eye-appeal to the product.

4 types of appeal for packaged desserts



NEWEST ROYAL instant pudding shows further trend to use of product illustration on package.

PHOTO COURTESY EDISON FOLDING CARTON C



COLOR ILLUSTRATIONS have been achieved with a high degree of success, even in small space on Jell-O pudding and pie filling packages.



DIET-CONSCIOUS trend is indicated by "sugar free" emphasis.

seeped through and other dry-packed products that caked because too much moisture was permeating the package.

A research department of two men (one of whom was Charles A. Southwick, Jr., now Technical Editor of Modern Packaging) began collecting data on packaging from all General Foods departments—sales, advertising, consumer service, manufacturing, purchasing, food technology—to find out what kind of packages were needed and to find materials that would fill the bill.

From this early work, which was done cooperatively with suppliers and technical groups, came many standard packaging test procedures which are now used not only in the dry-foods field, but throughout the packaging world. The standard method of determining the rate of water-vapor transmission through package barriers is still popularly known as "the General Foods method."

Laboratory procedure for evaluating the performance of finished packages which grew as the result of problems in the dry-packed food industry is now general practice in almost all fields. There are few large companies which do not have controlled-humidity caoinets for the storage of packages in accelerated tests under conditions approximating various climatic conditions. Product characteristics must be carefully analyzed in relation to required functions of the package. In this field of dry-packed foods, such

characteristics may vary as widely as the brittleness and high-fat content of potato chips to the extreme moisture sensitivity of leavening agents in prepared cake mixes.

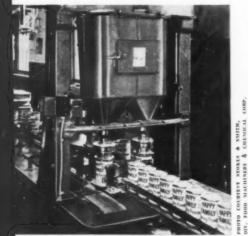
The problems as well as the rich dollar reward in this vast field of products has stimulated package-materials suppliers to turn out a constant flow of new combinations of materials, resins, films, foils, coatings and processes—each of which must be evaluated before it can find its rightful place in dry-food packaging or any other field where product preservation due protection against moisture, dryness, grease, etc., are a factor. The massing of performance data acquired as the result of laboratory experience is continually providing a broader and



PHOTO COURTESY SHELLMAR-BETNER DIV.,



PHOTO COURTEST MILPRINT, INC.



DUSTING LOSS is cut to a minimum by use of modern auger and vacuum filling equipment for "Happy Family" baking powder, Vacuum is first drawn on container by motor-driven pump. Powder is tightly packed by auger head.

more useful base for the evaluation of old as well as many new materials.

TRANSPARENT packaging is contributing a great deal to the promotion of dry packed foods, particularly for macaroni and noodle specialties. Products are visible and color printing attracts attention in display.

Says the director of one large package-development laboratory, "It took literally years to collect sufficient data so that we could specify the proper type and weight of cellophane needed for a specific job. Until we had such data from a performance standpoint on finished packages, we were unable to determine whether we were overpackaging or underpackaging. We had been specifying a certain minimum water-vapor-transmission rate, only to find that, due to the efficiency of our seal, we actually didn't need it that low on finished packages."

Many economies can be effected by this kind of research, leading to simplification of the entire package structure. Such research has also become imperative for use in writing specifications for the maintenance of strict tolcrances in statistical quality control essential to today's high-speed packaging production. It is foolhardy to attempt any kind of mechanical packaging today without a knowledge of materials performance.

A typical achievement

A case history typical of the kind of packaging development found throughout the dry-packed foods field is that of the current soup-mix packages of Thomas J. Lipton Co. As far back as 1942 the supplier of the present new wrap was asked to submit a suitable packaging material for use as a flexible container for the Chicken Noodle Soup mix then produced by Continental Foods, Inc., now a Lipton division. The product contained dehydrated material and chicken, plus chicken fat. The shortage of metals during wartime pre-

*For the story of recent changes in label design of these packages see "Sharper Lipton," MODERN PACKAGING, Jan., 1954, p. 126.



VACUUM PACKAGING has extended the shelf life of fresh-ground coffee in a manner that has effected many economies by reducing the number of roasting plants needed for national distribution.

INSTANT COFFEE accounts for 25% of the coffee now used in the United States. High-speed, vacuum filling machines like this one at Borden's can handle 180 jars per minute. Four vacuum stages assure full-measure filling.





cluded the use of aluminum foil and the then limited supply of plastic coatings made it impossible to produce a suitable packaging material with a reasonable shelf life.

As soon as the war was over, Lipton set out to improve the package for the product, which was fast gaining consumer favor. A flexible package was required that would guarantee the same freshness of flavor on the table as that which Lipton packed in its kitchens.

Aluminum foil was instrumental in providing a suitable pouch. A web was developed incorporating two layers of aluminum foil with a glassine sheet in the middle, plus a good heat-seal plastic coating on one side. The web was pre-fabricated into envelopes, attractively printed and quite satisfactory. As production requirements demanded, an automatic pouchforming machine was developed and installed at Lipton's to take the packaging material in roll form, make it into pouches, fill the pouches and seal them in one continuous automatic operation.

In 1949 Lipton began looking for a more economical packaging material that would give the same protection. After more than two years of preparation and testing, both in Lipton's packaging laboratory and that of the supplier, it was found that with the use of polyethylene as a coating, one of the foil plies could be eliminated. The material as finally adopted by Lipton is a lamination consisting of high-gloss-coated and printed glassine pouch paper on the outside and polyethylene-coated aluminum foil on the inside, with the polyethylene surface next to the product. The polyethylene not only gives excellent sealing properties, but is reported to permit the use of a lighter-gauge aluminum foil by completely sealing up "pinholes" and helping to prevent ruptures at the creases. The material is reported to be highly efficient for machine handling and to effect a substantial saving in cost, due largely to the greatly reduced amount of aluminum.

Development work of this kind would have been impossible 25 years ago. The special packaging demands of the dry-foods field have largely brought it about.

Merchandising factors

Next in importance to protection are the appearance and convenience aspects of today's dry-food packages. COOKS IN 7 MINUTES

CHICKEN

REPARED SOUP

R

ECONOMIES to be achieved through research are illustrated by efficient new material for Lipton soup packages—a lamination comprised of high-gloss-coated and printed glassine paper on the outside and polyethylene-coated aluminum foil on the inside. Saving is largely due to reduced amount of aluminum required for adequate protection.

The revolution in merchandising that has taken place in the last decade has brought about new concepts in package design. Old favorites that were good in Grandma's day can no longer hold a commanding place on today's store shelves. The demand for brighter colors, sharper brand identity and pictorial illustration of contents has started a great trend to redesign among all major brands. There seems to be no end to progress along this line. So avid has been the desire among manufacturers for beautiful color effects with mouth-watering illustrations that methods of process printing on all manner of surfacesincluding cartonboard stock-have advanced more in the last 15 years than they had before this in a century."

See "Trend to Fine Screen Printing," MODERN PACKAGING, June, 1953, p. 99.

New techniques are evolving to sharpen identity. Notable is the use of strong, memorable trade symbols that maintain family resemblance, yet are so arranged that other parts of the design can accommodate changes of illustration and information to highlight special promotions or premium features. One of the leaders in this was Kellogg's, with what it calls its "magazine-cover" cartons.6 A big rectangular panel at the upper left on the face of each package quickly distinguishes the product as Kellogg's, but the remainder of the package surface can be used for any type of illustrative treatment desired and can be completely changed almost from month to month. Recent designs call attention to personalities featured in

"See "Magazine-Cover Cartons," Modern Packaging, April, 1952, p. 86,



APPETITE APPEAL is introduced to sugar packages by Cuban American Sugar Co. Full-color photographs of tempting recipes that can only be made with sugar dominate these new sugar packages. Recipe information appears on back panels.

the company's radio and TV shows, carry premium offers, etc. During the last presidential campaign, this changeable package billboard was devoted to a get-out-the-vote campaign. Packaging "as newsy as the morning paper" is the underlying idea.

Brilliant food illustrations are beginning to appear among product groups where they have rarely been seen before, as exemplified by new packages for Colonial Sugars, mar-

CHECK WEIGHING is one of the essential phases in assuring aecuracy of fill in the dry-foods field. This check weigher designed to operate under severe dust conditions, will reject either under- or over-weight products by flashing red or green light signals. This machine sorts up to 80 packages per minute.

keted by the Cuban & American Sugar Co. Five-color printed cartons feature tempting illustrations of green and white icings decorated with strawberries and cherries, chocolate and mocha candies and cakes-all of which cannot be made without sugar. Carton backs give three or four tested recipes attractively illustrated with artwork. The packages are designed so that each panel leads the viewer's eve around to the next so that readership of all four sides is stimulated. A striped-awning-effect background, a trade character formed from the letters 'C' and 'S' carrying a bundle of sugar cane under its arm and strong bold lettering of trade name provide a format with strong family identity adaptable to either bags or cartons. This design also provides the magazine-type masthead that allows for periodic change without disrupting fixed elements. In introducing this revolutionary packaging in the sugar industry, Cuban-American sugar executives are convinced that the same packaging techniques so successful for other foods can be employed equally effectively for sugar.

The trend to more colorful product illustration is indicated, too, by what is happening to the packages for Aunt Jemima and Swans Down mixes. Within the past two years the packages for both of these lines of products have been redesigned, giving the priceless trademarks of Aunt Jemima and the swan positions subordinate to the big color illustrations of food dishes to be made from the contents.

In sharpening design, makers of dry-packed foods have realized the necessity of instant recognition on the shelves of the self-service store to cash in on the pre-sell expensively purchased today in space advertising and TV.

These same design principles are being applied to all types of packages for dry-packed foods, whether it be the metal key-opening cans for vacuum-packed coffee, the labels on soluble instant coffee jars or foil envelopes for soup mixes. Never has emphasis been more strongly directed to fast brand recognition and in this important trend the dry-packed foods have been outstanding leaders.

Right now there seems to be a flurry of redesign in the packageddessert field. Currently being introduced are Chr. Hansen's new foil wraps for Junket rennet custards. About a year ago this firm adopted a dramatic new trademark logotype for all Junket packages, combined with color designations for all flavors. This bold, instantly recognizable design has now been adapted to new printed foil-glassine-polyethylene combination wraps, giving greater protection to these products, which are highly sensitive to moisture and heat, and also new color and brilliance that is quickly attracting shoppers' attention on store shelves.

There seems to be a question in connection with dessert-package design as to the effectiveness of product illustration on the packages. The packages are small and give only limited opportunity for impressive fullcolor-process illustration. Getting suitable appetite-appealing illustrations of ready-to-serve desserts in this small space presents a difficult art problem.

Some firms, however, are accomplishing it successfully. Jell-O puddings and pie fillings now carry colorful illustrations of the desserts to be made with contents. The trend to the use of illustration is also indicated by a package for coconut cream pudding, the newest member of the Royal Instant pudding family.

Transparent packaging

Also contributing importantly to the appearance of dry-packed foods has been the increasing use of transparent packaging in this field, not only for a wide line of ready-to-eat cereals, but for macaroni products and the ever-increasing number of ready-to-eat snacks such as potato chips, popcorn, cheese and corn tidbits; all of which are generally packaged in colorfully printed cellophane, film or glassine bags which give product visibility through the package and thus encourage the impulse sale. Im-(This article continued on page 170)

Poly caps for Colgate tubes

With both dental and shave cream now using polyethylene closures,

Colgate discloses reasons for its switch from rigid plastics

The first important switch from a rigid plastic to polyethylene for molded, threaded caps on collapsible tubes comes with the Colgate-Palmolive Co.'s adoption of polyethylene for Colgate Dental Cream—the world's largest-selling toothpaste* and possibly the largest single user of collapsible tubes—as well as for Colgate and Palmolive Shaving Creams.

The new and, according to Colgate, more efficient closures represent nearly seven years of developmental work which began in 1947 when polyethylene first began attracting the attention of packagers. The first sample molds were made in 1951 for Colgate and Palmolive Shaving Creams, which were used as the proving ground. But progress in the application of the cap to both products was delayed in part due to the shortage of polyethylene resin.

The shaving-cream caps went into commercial production early in 1952 and, with the completion of molds in all required sizes, the company will be marketing all dental-cream packages with the new caps this year.

The switch from hard to soft caps has been made primarily to eliminate the problem of loose caps and loose liners, and to achieve a more efficient valve seat. To date, the company reports, the new closures have reduced the problem of loose caps to zero and, since a polyethylene closure requires no liner, the entire problem of liners has been eliminated. Eventually, as the cost of development work is amortized, Colgate expects the new caps to effect substantial economies in that they eliminate the entire cost of liners and in that a lower price is anticipated for polyethylene as future production facilities for this plastic material are expanded.

Development of the new caps represented a major engineering project, due to the quite-different characteristics of the polyethylene from the



STIPPLED top surface, slightly smaller diameter and full-length flute flush with base of cap are the only noticeable differences in the exterior appearance of new cap (left) shown beside the former hard cap.

urea plastic formerly used. Because of polyethylene's resiliency, it was found that thread tolerances must be held to zero minus 0.003 in.

A buttress-type thread had to be designed to give a broader bearing surface. To achieve exactly the number of threads to provide ideal gripping revolutions of 1½ to 1¾ turns entailed considerable study. A thread that requires too many turns is a consumer inconvenience, yet the ideal one must grip tightly at the end of the winding.

The new caps are very little different in outward appearance from the old, except that they are somewhat smaller in diameter, are fluted right to the base of the cap and are slightly domed across the top when securely seated, due to the elasticity of the polyethylene. The top surface has been stippled to impart a neat appearance, since it was found difficult to prevent scuffing of the polyethylene in shipping and handling.

The caps for dental cream are supplied in the same color as Colgate's familiar red hard caps, although for a time the dental-cream tubes were seen with white urea caps because of a shortage of the correct red pigment to maintain color standards.

The new polyethylene caps are made in a red to match the familiar red band which encircles the top of the Colgate tube, bearing the trade name in bold reverse-white lettering and the red lettering of the words "ribbon dental cream" which run the full length of the otherwise all-white lithographed surface. Molds have now been perfected for polyethylene caps on all sizes of the dental cream.

The polyethylene caps are shipped to Colgate seated on the tubes ready for filling in the conventional manner. They are being made by four different molders to Colgate-Palmolive Co.'s specifications.

CREDITS: Molded polyethylene caps, Mack Molding Co., Ryerson Ave., Wayne, N. J.; Owens-Illinois Glass Co., Toledo 1, Ohio; Sun Tube Corp., 181 Long Ave., Hillside, N. J., and A. H. Wirz, Inc., Chester, Pa.

See "Colgate Dental Cream," Packaging's Hall of Fame, Modern Packaging, May, 1949, p. 100.

Design

Faster recognition for High Life trademark



"Actual and exhausive testing," according to Miller Brewing Co., "has shown that the new packages for Miller High Life beer have greater attraction . . . more sales appeal and faster recognition than any other beer tested." Success with a complete family of home packs several years ago prompted a two-year research and consumer-testing program that has been climaxed by a packaging refinement program featuring what Miller calls its new "soft cross" trademark. The new symbol is an adaptation of the familiar cross neck label used on all Miller bottles for more than 50 years. It is being used as an integral part of all the company's packaging and visual advertising, embracing all master cartons and take-home packs-from quart bottles to "splits" and cans. Effectiveness was determined by psychometric methods of visual testing.

CREDITS: Master cartons and carry-home cartons, Container Corp. of America, Chicago, Ill. Designer, Brooks Stevens Associates, Milwaukee, Wis.



Moxie's carnival carousel

The Moxie Co. has converted that sales workhorsethe carry-home carton-from a purely functional pack to a sure-fire attention getter with its new Carnival Pak. The red, yellow and green carrier holds six small bottles and one large one in the center, plus soda straws. The die-cut top forms the roof and positions the bottles. A green cord threaded through the base attaches to an easy-to-carry handle and keeps the unit together when bottles are in place. The base consists of three glued corrugated disks, the top one die cut to recess the bottles and straws. The printed side panel is a flat slotted strip taped to the base.

The Carnival Pak was designed to (1) increase unit sales, (2) to capture new customers and (3) to serve as a point-of-sale advertising piece. Effectiveness was demonstrated by the 85% re-orders received within 10

days of its introduction.

CREDIT: Carrier: Knowles Silk Screen Co., Boston, Mass.

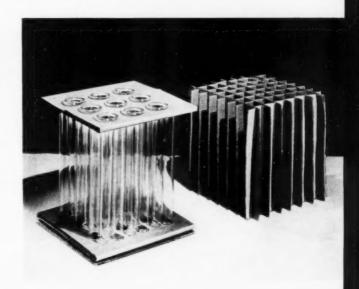
Histories

Scientific glass rides easy and economically

The corrugated cross hatch pictured here has provided an outstanding solution to the problem of shipping delicate scientific glassware economically and with a minimum of breakage. The new shipping box recently adopted by Doerr Glass Co. reportedly represents a 50% reduction in packing time and an appreciable savings in freight charges.

The case, used for shipping glass hydrometer jars, has 18 separate compartments which are subdivided by die-cut packing pieces to form spaces for 36 of the glass jars. The new box takes up half as much room in storage and cuts five minutes off old packing time. Doerr reports that the new shipper traveled from Vineland, N. J., to Chicago and back in a test shipment without noticeable damage to the container itself and without breakage or damage of any kind to the contents.

CREDIT: Box Hinde & Dauch, Sandusky, Ohio.



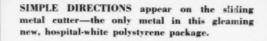
More self-stacking jars

A new stacking feature for wide-mouthed glass jars promises to reduce shelving problems for Kraft foods. The interlocking feature—a development of Kraft Foods Co. in cooperation with container and cap suppliers—consists of a molded indentation in the base of the glass jar and a matching ridge protruding from the cap. Above and beyond neater shelf displays, the new feature considerably reduces the costly time factor required for stocking and restocking the shelves. All Kraft plants producing Miracle Whip, mayonnaise, mustard, sandwich spread and malted milk will convert to the new stack-type jars. Where the new form lends itself, the feature will be extended to other Kraft products.

CREDITS: Glass containers, Hazel-Atlas Glass Co., Wheeling, W. Va.; Ball Bros. Co., Inc., Muncie, Ind., and Metro Glass Co., Jersey City, N. J. Closures, Crown, Cork & Seal Co., Inc., Baltimore, Md.; Ball Bros. Cap Co., Chicago, Ill. and Bernardin Bottle Cap Co., Evansville, Ind.







STREAMLINED TAPE DISPENSER

Locked-in plastic spool-and-shell case shears tough J & J surgical tape with sliding metal cutter

Through the use of a clever, new two-piece dispenser container molded from white polystyrene and equipped with a sliding metal cutting edge, Johnson & Johnson, New Brunswick, N. J., believes it has at last solved the 50-year dilemma of how to dispense cloth-backed surgical adhesive tape with the same ease with which handy dispensers have been cutting the lighter pressure-sensitive film tape for more than a decade.

Johnson & Johnson considers the new streamlined roll plastic container, sold under its trademark "Cut-Quick," an improvement over the tear-off metal can¹ which it introduced less than two years ago. Consequently plans are going ahead for the new dispenser to replace that type of package.

The new package marks a return to the general form of the metal spool-and-shell container which is still the standard package for most surgical tape. That package, however, requires that the spool be snapped completely out of the friction-fit metal ring-type shell and the tape be unwound by dint of fingernail and finger grip, and cut off by a pair of scissorsto which the cut-off tape invariably sticks. Although Johnson & Johnson researchers over a period of years examined a multitude of patents-including crush cutters, shear cutters, slice cutters, and various modifications thereof-for automatic integral cutters

to be incorporated in this type of package, none was found which would satisfactorily do the job.

The 1952 metal can, with a serrated edge on the hinged lid against which the tape could be cut off, was considered an improvement, although not the final answer.

The secret of the new package—and the only metal in it—is the sliding cutter about 1% in. long with a serrated arcuate cutting edge. The metal cutter rides on grooves outside the round body of the dispenser and operates far more freely than did other types of metal cutters which were tried. A printed arrow and directions on the plastics body tell the user to open cutter to reach the tape. Directions printed in red and blue on the

¹See "Tear-Off for Tape," Modern Packaging, June, 1952, p. 114.



THE TEAR-OFF is quickly and cleanly made against serrated cutting edge which was the subject of long and detailed research.

white metal surface, clearly describe the action as follows: "(1) Close cutter—hold tightly; (2) grasp near cutting edge; (3) rip tape upward."

Design features

There are several interesting construction features which contribute to the efficiency of the container. It was, in the first place, shaped so it would easily and conveniently fit in the consumer's hand. Special-purpose ribs molded inside the dispenser hold the tape roll near the center to allow for free movement in unwinding and to prevent the tape from sticking to the side of the container. A very complex mold was required and was successfully used.

Snap locks placed at the core of the two separate shell pieces of the dispenser make it an inseparable oneunit package once the two pieces are snapped together. One section of the shell incorporates the spool. The wound tape is simply dropped over the spool on the production line and the other half of the shell then snapped in place.

Another convenience feature of the dispenser is a novel pick-off table. It slopes upward so that the end of the tape, which rests on it, can be easily picked off by the user.

An interesting stop device on the metal cutter consists of a crosswise depression which stops the cutter against the base of the pick-off table.

A lock for the cutting blade consists of a "nub" on one side of the metal cutter which fits into a small depression in the rim of the plastic shell. When the cutter stops against the base of the pick-off table, it is locked into position.

Bow-shaped teeth were considered advantageous, since many consumer tests have revealed that they give fast and easy cutting of adhesive tape.

Provision is made in the container

for a large-enough dispensing opening so the tape may be easily retrieved by the thumb and forefinger of the user should the end fall off the pickoff table.

Since the many plus features of the new Cut-Quick Roll package require a slight premium in price, it will supplement rather than replace the standard low-cost snap-out spool and shell of metal. A length of 140 in. of %-in. tape in the new plastic dispenser retails for 25 cents.

In cross-section, the plastic dispenser tapers slightly from center axis to rim. This is functional, facilitates molding, saves material and gives a pleasing appearance and feel. But it was realized that the resultant inability to stack one dispenser securely on the other would play hob with dealer acceptance—particularly in self-service drug and supermarkets—unless something were done about it.

J & J's designers did something very simple and interesting. They made a thin, raised rim around the center opening of the top section of the shell and a corresponding depressed rim around the center of the



STACKING PROBLEM of tapered case was overcome by molding in mating rims on top and bottom of the plastic shell.

bottom section, so that when two rolls are stacked together, bottom to top, the two rings nest and there is no danger of any sliding or toppling even of a good-sized stack.

This nesting device has been very cleverly employed to hold a single dispenser in a simple die-cut display boot. Service stores like to display at least a part of their stock this way and for back-shelf stock the boot can be discarded.

The fold-down back flap of the boot has a die-cut semi-circular edge which exactly fits the raised rim of the

LOCKED PACKAGE results when raised rim of the plastic roll snaps under die-cut bottom edge of display boot header shown in empty boot at left. With no other attachment, package is securely held.



dispenser and locks it into place. Once the dispenser has been dropped into place, the boot can be up-ended and shaken vigorously without losing the contents.

The boots are so designed that they can be alternated in pairs for space saving and packed six pairs, or a dozen rolls, to a paperboard shelf carton.

The new Cut-Quick Roll is an excellent merchandising package on its own without the display boot, for the gleaming white package is effectively printed in red and blue on its outer circumference—carrying the J & J name, famous "Red Cross" trademark and all essential information—and has

additional identification as "'Cut-Quick' Dispenser" molded into the plastic on top and bottom of the shell.

Test market results

Following successful sales tests in Indianapolis, Syracuse and Washington, D. C., Johnson & Johnson has now undertaken national distribution of the new package. Trade surveys indicate that the "Cut-Quick" roll will expand the adhesive-tape market, for sales of the new unit have been adding new business over and above sales of standard adhesive-tape packages, the company reports.

Consumer tests have proved to the satisfaction of Johnson & Johnson that the dispenser with the sliding cutter is preferred two to one over the stationary cutting edge. The latter package, in turn, was preferred by 88% of women interviewed over old-style spool tape without any cutting device. Thus, the plastic cylindrical dispenser is considered by J & J to give it a big selling advantage over competitors wherever consumer convenience is a factor.

CREDITS: Molded plastic spool-and-shell case, Plastics Div., Curtiss-Wright Corp., Carlstadt, N. J. Design consultants, Nowland & Schladermundt, 161 E. 42 St., New York 17. Sliding metal cutter, J. L. Clark Mfg. Co., 23 Ave. at Sixth St., Rockford, Ill.

Bauer & Black chooses transparent polystyrene

The trend to plastic dispensers for surgical tape—which promises to develop into one of the biggest markets for rigid molded plastics in packaging—is strengthened with the announcement by Bauer & Black, Chicago, the second big producer of surgical adhesive tape, of its new square cutter case for Curad tape, molded of transparent polystyrene.

At the same time, Bauer & Black claims a product improvement. Its Curad tape now uses a specially formulated waterproof vinyl-film backing, instead of cloth, similar to that now generally used on flexible fingertype bandages.

'Jewel-like" is B & B's word for its clear polystyrene package, which has a lid hinged on one side and a built-in cutter device on the other. By lettering molded into the lid, the user is instructed to "Lift top-pull tape up-snap top tight to cut-pull, don't twist tape." In the fact that its dispenser actually cuts the tape and requires no twisting and tearing, B & B believes it has gone its competitor one better. Possibly the cutting is made easier by the change to the vinyl backing. At any rate, the company boasts that "it cuts evenly, without any raveled ends or mashedtogether edges." A green, non-adhesive end tab starts the tape and thereafter the cut end sticks to the cutting anvil-through which three sharp teeth on the lid section do the cutting.

The Curad case dispenses 207 in. of ½-in. tape. It is molded in three parts, so designed that they are snap-fitted together on the B & B packaging line after the roll of tape has been dropped in place on the core which is integral to one side of the case. The core is open through the center of the case. No cementing is required and assembly is said to be very fast. No metal is used, even in the hinge or cutter.

Labeling is carried by two colorfully lithographed paper inserts green and red on white—which rim the tape core and show up effectively through the clear plastic sides.

Bauer & Black says it likes this style of dispenser because the cutter works so easily, the amount of tape left on the roll is clearly visible and it doesn't roll as round dispensers might.

In national magazine and TV advertising, B & B will push the new flexible, waterproof tape—and its handy dispenser-cutter—not only for bandaging, but as an all-purpose tape to be used around the home like electrical tape.

The dispenser was developed and a patent has been applied for by the plastic molder who supplies it.

CREDITS: Molded dispenser, Federal Tool Corp., 3600 W. Pratt, Chicago. Lithographed insert designs, DeForrest Sackctt, 410 S. Michigan Ave., Chicago.

CURAD DISPENSER is distinguished by full visibility of contents, square shape and cutting—rather than tearing—edge molded into package. Transparency guards against running out of tape at the inopportune moment.



Shulton goes modern

Firm's first new fragrance line in 11 years shows package swing to new art forms



NEW ADVENTURE in fragrance calls for completely new design approach. Bottles are undulating free-form shape. Polyester cap on perfume bottle is studded with 23-carat gold flecks. Box and cartons for whole fragrance line are geared-to-the-times in motif and color treatment.

S ignificant of the way modern art forms are gaining momentum in the realm of cosmetic packaging (as forecast last year in these pages¹) are the new packages for "Escapade," Shulton's first new fragrance in 11 years.

Escapade, heralded as a truly modern fragrance combining the best work of French perfumers with the skill and know-how of top American perfumers, sets the pace for an entirely new, geared-to-the-times adventure in fragrance packaging which for this company may be as outstanding as its conspicuous success with Early American Old Spice, Friendship Garden and Desert Flower.²

The fragrance itself reportedly borrows nothing from the past. It was selected from a total of 29 different fragrances narrowed down to four by modern research techniques of sampling to panels of store buyers and women users. A panel of men was also asked to select one of the four they liked best—a test in which Escapade won out 20 to one in men's preference.

The ultra-modern feeling of the packaging is as different from the nostalgic Americana appeal of Shulton's other lines as this new type of perfume is from other Shulton fragrances.

The line consists of quality perfume packaged to sell at \$15 for % oz. plus tax, accompanied by three items in keeping with Shulton's long-established policy of quality products in the volume price range: toilet water (3½ oz.) at \$1.50; stick cologne concentrate at \$1 and a miniature perfume package consisting of a purse flacon with satin carrier in a gift box at \$2.

The private-mold bottles have un-

dulating free-form shape. The cap on the perfume bottle is made of polyester resin, elegantly studded with 23-carat gold-leaf flecks. The bottle rests in a free form dais of white polyethylene resembling unpolished porcelain, set in a black polystyrene base which accommodates a handsome box cover. The latter is of paperboard covered with high-gloss black paper printed with traceries and flecks of blue, white and India pink. The cover was purposely designed to encourage dressing table use as a protection of the perfume from light.

Cartons for the toilet water and stick cologne are printed with combination stripes of bright India pink, vari-colored spatter mauve and black diagonal lines.

The intricately injection-molded lacy basket of polyethylene designed and produced by Shulton as the decorative element on its other stick cologne containers has been adopted for the Escapade purse-stick cologne, used in this case over pink aluminum foil. The carton for the stick cologne carries the striped design also.

The purse bottle is sprayed dull black with a resin coating and is closed with a white polyethylene cap. The fragrance name is printed in black on a narrow India pink label. The flacon is accompanied by a black and pink satin purse case and rests in a black-and-pink paperboard platform box covered with a fabricated transparent acetate cover.

Many of the plastic parts and the set-up boxes are produced in Shulton's own plastics and box-making divisions.

This smart packaging forms an appropriate vehicle for the provocative name and scent in all fashion and promotional tie-ins, and will be linked to a theme: "Escapade—an adventure in fragrance—to shake your world a little."

CREDITS: Bottles, T. C. Wheaton Co., Millville, New Jersey. Bottle labels and neckbands, also perfume boxwrap, Cameo Die & Label Co., 154 W. 14 St., New York. Polyester gold-flecked cap, Unex Inc., Little Falls, N. J. Urea cap for toilet water, Castle Plastics Inc., 141 E. 44 St., New York. Folding Cartons, Robert Gair Co., Inc., 155 E. 44 St., New York. Purse perfume-Satin bag, Columbia Products Corp., 221 McKibben, Brooklyn, N. Y.; box wrap, De Troy Press, Inc., Englewood, N. J. Acetate box cover, Transparent Fabricators, Inc., 220 Fifth Ave., New York. Label for Stick Cologne-Avery Adhesive Label Co., Monrovia, Calif.

¹ See "New Dimensions for Cosmetics," MODERN PACKAGING, Sept., 1953, p. 132.
2 See "Shulton Old Spice for Men," Packaging Hall of Fame, Modern Packaging, Sept. 1953, p. 102.

Packaging





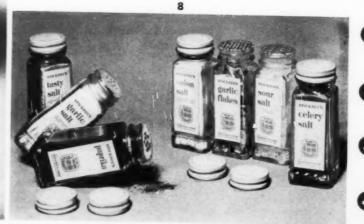












Pageant

One film plus a spare at an advantageous price is the merchandising idea behind Kodak's new "Duo-Pak" economy film offer. Stand-up flap, punched for racking, carries extra boost for the special package promotion.

A formed acetate container highlighted by jet black printing against opaque white bands gives full visual appeal to I. J. Moritt Products Co., Inc.'s new Jet dishwashing brush. Container, Fred Mann & Co., Inc., New York.

Zodiac, a new men's cologne packaged in a wood-grain, brown and orange, double-walled carton that eliminates interior packing, is accompanied by a birthday card containing 12 horoscopes. Design, Robert E. Van Rosen, New York. Carton, Robertson Paper Box Co., Inc., Montville, Conn. Labels, Ever-Ready Label Corp., Belleville, N. J. Closures, Richford Corp., New York.

A Success of its salesmen's samples prompted Lloyd Bros., Inc., makers of Drocolate cough syrup, to adopt the single-teaspoon packet as its standard commercial package. The laminated packs, sold in cartons of 100, consist of a combination of acetate, foil and vinyl. Unit package, Ivers-Lee Co., Newark, N. J.

A component package that keeps vegetables separate from meat sauce has overcome the danger of overcooking Chun King's Beef Chop Suey. Tape secures cans. Cans, Continental Can Co., New York. Tape, Permacel Tape Corp., New Brunswick, N. J. Labels, H. S. Crocker Co., San Bruno, Calif.

A new insulating wrap for pre-packed carryhome ice cream containers, used by H. P. Hood & Sons, is made of special double-creped paper. It eliminates separate insulated bags and permits a neat final overwrapping with wax paper for trade identity. Wrap, (Cindus Cushion X-Crepe) Cincinnati Industries, Inc., Cincinnati, Ohio.

New impact is given the name and trademark of Magnus Chemical Co. as a result of the bright orange, blue and white design now embellishing its metal drums. Containers, Rheem Mfg. Co., New York; Virginia Barrel Co., Eddystone, Pa., and Eastern Steel Barrel Co., Bound Brook, N. J. Design, Jim Nash, New York.

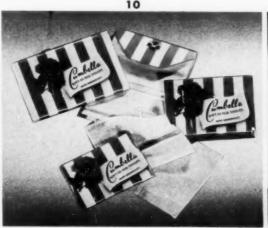
Modern moisture protection and dispensing ease have been added to attractively-labeled glass containers for Stickney & Poor spices by the use of laminated glassine and foil-glassine secondary closures. Container, Hazel Atlas Glass Co., Wheeling, W. Va. Label, Forbes Lithograph Mfg. Co., Boston, Mass. Caps, "Filma Seal" and "Sifta-Seal," Ferdinand Gutmann & Co., Brooklyn.

Full-color, realistic illustration on carton for "Q-T Snow Whip" cake frosting manufactured by Taylor-Reed Corp., emphasizes the sculptural possibilities of this convenience food product. Cartons (Fidel-I-Tone process), Lord Baltimore Press, Baltimore, Md. Design, Robert G. Neubauer. Inc., Bridgeport, Conn.

10 Paper hankies stitched under the flange at one end of an attractively printed paperboard folder provide a convenient new purse pack marketed in Britain by Cumberland Paper Co. Package is protected by cellophane overwrap. Cellophane, British Cellophane Ltd., London.

11 Realistic pictorial appeal and a revolving "bank" of recipes on new labels for Hunger-ford Packing Co.'s York County Dutch onions has met with such success that the company plans to use the same design technique for its entire line of products. Container, Continental Can Co., New York. Labels, H. S. Crocker Co., San Bruno, Calif.







TUBED SUGAR

Package shape can be an important element in package improvement—both from the standpoint of function and appearance. This fact is demonstrated by a new single-service package for sugar, said to be the first of its type to depart from conventional pouch constructions. The new container is tube shaped and can be attractively served in sugar bowls or as part of an individual place setting.

According to the Utah-Idaho Sugar Co., Salt Lake City, which has introduced the cylindrical pack in the West, it represents a new high in functionalism and a significant improvement on conventional individual sugar service. One of the interesting features of the package is that, due to the shape and narrow opening, it is easy to pour out any desired portion of the contents accurately and without spilling.

The new individual sugar service, called the Place Setting Pak, is slightly shorter than a teaspoon and is designed especially to complement the flatware arrangement. The red, white and blue barber-pole design provides a colorful table accessory, with clear cellophane emphasizing the purity and free-flowing characteristics of the product. The sparkling white crystals, clearly visible, form a natural

background for the vivid red and blue overprinting. The logotype, in nearly half-inch-high red letters, performs the important function of carrying the producer's name directly to the consumer. Directions for opening and suggestions for allied uses run longitudinally up the back of the package in smaller blue type.

From a purely functional point of view, the Place Setting Pak is a joy to handle. It measures 5½ in. long and is half again as big around as a pencil–fitting comfortably into the hand. A round opening for easy pouring is provided when the sealed top of the tube is torn of horizontally.

DISPENSING is controlled by pinching the tube to shut off flow at any point. Stick-like "Place Setting Pak" is intended to be placed with silver. Due to shape of packet, carton of 100 can be automatically filled in orderly fashion.



SERVICE

New development in unit packaging

yields an individual single serving

economical to produce and easy to use

Slight pressure between the thumb and forefinger retains any part of the contents not desired. Contents are ¾ oz., approximately one rounded teaspoon, which is the standard generally for single-service packets of loose sugar.

From a production standpoint, an important consideration of this slender tubular pack was: Could it be produced at a cost comparable to, or even lower than, that of the standard package? The nature of the package was such that the sugar could not be fed through a mandrel larger than a pencil

This factor limited filling speeds to approximately 75 packages per minute. In order to achieve high production per machine, it was necessary to develop a machine that would produce four of these packages at a time. At present each packaging machine is producing Place Setting Paks at the rate of 300 per minute. This, it is said, is about twice the speed of the fastest commercial machine used for pillow-type sugar packages.

The transparent cylinder is formed of 1½ in. wide, 300 MST 56 cellophane, the continuous heat seal runing down the back of the package. Type 56 MST cellophane was chosen because it has approximately one-third the water-vapor-transmission raddition, a measurably stronger seal. Protection against moisture and tight seals to prevent leakage of sugar are, of course, essential requirements for the product.

Although the slender shape was a limiting factor in filling, it was a distinct asset in lowering the cost of packing 100 units to a box for distribution. The conventional pillow-type package of loose sugar requires semimanual, side-by-side stacking in the institutional-sized carton. The high

cost of labor forced a number of Western sugar concerns to use random drop packages of 500 units. Place Setting Paks, on the other hand, discharge automatically into the folding cartons.

When the count has reached a full 100 units the four-feed channels rotate 90 deg, to begin filling another box, which has been set up and locked automatically—thus achieving complete mechanization and a consequent reduction in cost for this operation.

The potentials of this package shape for additional products are interesting. The transparent cylinder could readily lend itself to carding to increase merchandising surface, and its small size suggests grouping, as for sampling a "set" of flavors, seasonings, etc. Also it can employ packaging materials other than cellophane, including plastic films, paper, foil and combinations of these.

In the sampling field and for institutional use the tube-shaped package might be used for dry shampoos, cosmetics, dish-washing detergents, dry foods portions and other freeflowing powders.

Labeling is necessarily limited by the small diameter of the package. In some instances this might be overcome by carding. Prominent measureof-contents labeling is desirable, and future Place Setting Paks will have a gauge printed on the back panel graduated in ¼ teaspoons so the user can measure and dispense exact quantities of sugar.

CREDITS: Packaging development by William Steven Co., 6666 Santa Monica Blvd., Los Angeles 38, Calif. Cellophane roll stock printed by Milprint, Inc., 4200 N. Holton St., Milwaukee, using DuPont 300 MST 56 cellophane. Folding cartons by Andre Paper Box Co., 545 Mission St., San Francisco 5.



OPENING is simple matter of tearing off sealed end. Tubular shape lends itself to easy pouring. Any sugar not used can be protected from spilling by folding over end of package.

Folding-box champs

Winners in the 9th annual carton makers' competition,

chosen from 6,288 entries, show emphasis on salesmanship

A merica's 100 Best Folding Cartons merit that appellation because they mark a new high in the effective use of high quality printing, sturdy construction and built-in merchandising features to meet today's intensified sales competition.

This is the general conclusion that may be drawn from the winning entries in the Ninth Annual Folding Carton Competition sponsored by the Folding Paper Box Assn. of America, which were displayed to association members last month along with the record-breaking list of entries at the group's 1954 meeting in Chicago. All cartons, displays and related paper-board products submitted for the 1954 competition were exhibited at the Drake Hotel from March 22 to 25, with the public permitted to view the entries on the final day of the meeting.

Although the generally high caliber of the cartons, particularly from the standpoint of printing, was probably the dominant feature of the 1954 competition, there were also other notable highlights. This year's competition again marked a new high in the number of member companies participating—121 in comparison with 102 in 1953, 90 in 1952 and only 66 in 1951. Also setting a new record was the number of total entries, which zoomed to 6,288 for an increase of 37.2% over the 4,516 entries submitted for the 1953 carton competition.

In addition to the high quality of printing exhibited by many of the entries, which in the opinion of the judges generally approached the finest paper printing, cartons in the 1954 competition also demonstrated unmistakably an awareness on the part of manufacturers that the sellers' market is at an end and that packages must take on a heavier sales responsibility. These trends were apparent in the wide use of convenience features, hard-hitting sales copy and eye-catching display effectiveness. Other important trends noted by the judges in-

cluded the greatly increased use of window cartons for visual selling, the wide application of family-design treatment for integrated merchandising of related products and use of specially constructed packages to carry a group of items, such as sporting goods, which constitute a multiple one-shot sale.

An important change in procedure this year was the elimination of the grand award winner, which previously has been selected each year at the annual meeting by a vote of members in attendance. Award winners in each category of the competition were selected in advance of the meeting by three panels of judges who evaluated the entries on the basis of technical superiority of printing, technical superiority of construction, best potential new volume use for paperboard, and general superiority according to end use, with the latter classification divided into 15 merchandise categories.

All entries for the 1954 competition were required to have been produced

Best examples of printing processes



Multi-color Gravure Printing

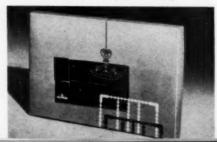


Multi-color Letterpress Printing
(Also Merit Award—Personal Accessories)



Two-color Offset Printing

Two-color Letterpress Printing



by a member of the association and actually shipped for the first time after Jan. 1, 1953. It was also required that all entries be produced wholly or in part of paperboard and that none be a winner of a previous FPBA competi-

Member companies were allowed to base their number of entries on annual sales volume, with the annual volume of each plant being considered individually for companies having multi-plant operations. Companies whose annual sales volume exceeded \$10,000,000 were allowed up to 30 entries; \$5,000,-000 to \$10,000,000, 25 entries; \$2,500,000 to \$5,000,000, 20 entries; \$1,000,000 to \$2,500,000, 15 entries, and those with a sales volume under \$1,000,000, 10 entries. Each entry was automatically placed in all four main classifications of the competition.

Judges for the 1954 carton competition were as follows: Printing-Burton Cherry, printing consultant, Burton Cherry & Associates; Wayne V. Harsha, editor, The Inland Printer; Homer E. Sterling, associate professor, Carnegie Institute of Technology. Construction-R. A. Irwin, president, Somerville, Ltd.; James W. Goff, Michigan State College, Department of Forest Products; D. J. Snell, vice president, Manchester Paper Boxes, Ltd.; Erik Torudd, director, Akerlund & Rausing, Lund, Sweden. End Use and New Use-George Hamilton, editor, Boxboard Containers; Harold Jones, public relations manager, International Correspondence Schools; Louis Ingwersen, art director, J. Walter Thompson Co.; Harold Stokes, editor, American Boxmaker; John Willmarth, vice president, Earle Ludgin & Co.; Val Wright, midwest editor, Mon-ERN PACKAGING.

Following is a summary of the award-winning packages in the respective classifications of the 1954 competition. All of the first-award winners in this year's event are illustrated herewith:

I. Technical Superiority of Printing. Best Gravure and Offset Lithographic Printing. One-Color and Two-Color: First award to Cotton Balls carton, made for Bauer & Black Div., the Kendall Co., by Ace Carton Corporation. Formerly packaged in typical colorless pharmaceutical style, the product is now offered in a redesigned carton to capitalize on impulse sales, making use of feminine design and pastel colors. An award of merit in this classification went to the Midnight cologne carton,

Firsts for construction and specialty features



Display Containers



Miscellaneous
(Also Merit Award—Display Containers)



Ingenuity of construction



Carriers



Retail Boxes



Sun Visor



Christmas-tree Base

First awards in their product fields







Paper Products

Toys

Confections









Boverages
(Also Merit Award—Construction)

Cosmetics

Textiles

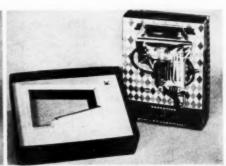
Medicinal Products







Tobacco
(Also Merit Award—Construction)



Hardware

made for Lehn & Fink Products Corp. by Robert Gair Co., Inc. Sales figures have proved that the carton has strong feminine appeal.

Multi-Color: First award to Autocrat Tea Bags package, made for Brownell & Field Co. by Robert Gair Co., Inc. This package featured beautiful gravure printing on silver foil—a very difficult medium on which to print—and was a redesign from the traditional tea carton colors of red and yellow to obtain distinction and outstanding eye appeal. Printing consists of six colors and gravure gloss. Awards of merit: Fab carton, by Robert Gair Co. for Colgate-Palmolive Co.; Old Taylor Bourbon Whiskey, by Robert Gair for Na-

tional Distillers Products Corp.; Bleu Cheese Crackers, produced by The Lord Baltimore Press for National Biscuit Co.; Red Owl and Trenton cake mix families, made by United States Printing & Lithograph Co. for Red Owl Stores, Inc., and Trenton Milling Co.; Viviano spaghetti and macaroni family, by U. S. Printing & Lithograph for V. Viviano & Bros. Macaroni Mfg. Co., and All detergent, made for Monsanto Chemical Co. by U. S. Printing & Lithograph Co.

Best Letterpress and Flexographic Printing. One- and Two-Color: First award, Harmony House sheet and pillow case ensemble, made for Sears, Roebuck & Co. by Paper Package Co. This was characterized as a beautiful, yet economical carton of the straight tuck and lid type which protects the product while providing a colorful display container for self-service buying. It is a two-color and varnish job. Merit awards: Sachet Paquet, made for Allen B. Wrisley Co. by Ace Carton Corp.; Dazey Egg Beater, made for Dazey Corp. by Acme Folding Box Co.; Scented Candle, by Andre Paper Box Co. for Colonial Wax Products Corp. of California; Flint Arrowhead food mixer, made by Container Corp. of America for Ekeo Products Co., and Hennessy Cognac, made by Robert Gair Co., Inc., for Schieffelin & Co.

Multi-Color: Top honors in this

group went to the Kenmore Barber Set package made by Paper Package Co. for Sears, Roebuck & Co. It is designed to protect the delicate tools and at the same time is sufficiently well designed to qualify as a gift item. Increase in home barbering presaged demand for this unit kit. Awards of merit: Fox De Luxe beer carrier, made by American Coating Mills Div. of Robert Gair Co., Inc., for Peter Fox Brewing Co.; Fieldcrest Trousseau Towels (Lace), made for Fieldcrest Mills, Inc., by Container Corp. of America; Amaco Finger Painting Set, by Paper Package Co. for American Art Clay Co.; Jergens Instant Suds, by The Richardson Taylor-Globe Co. for the Andrew Jergens Co.; RCA Speaker parts, made for Radio Corp. of America by Edwin J. Schoettle Co.; and Privine Nebulizer display, produced by Wilkata Folding Box Co. for Ciba Pharmaceutical Products, Inc.

II. Technical Superiority of Construction. Best Display Containers: First award to Four-in-One Princess Purse Display, made for G. R. Godfrey Co. by National Folding Box Co., Inc. Merit awards: Beco Planters, made by Acme Paper Box Co. for Bernard Edward Co.; Circle "L" Brand Pencils, by The Bradley & Gilbert Co. for Linton Pencil Co.; "Shadow Box" for Bowl-O'-Beauty Co. by The Gardner Board & Carton Co.; Tela-Jama set, made for Wilson Brothers by The Gardner Board & Carton Co.; Gillette Blue Blades Christmas Tree Display, made by The Nevins Co. for The Gillette Co.; Drene Shampoo Display, by The Richardson Taylor-Globe Corp. for Procter & Gamble; Lifebuoy Shaving Cream Display, made for Lever Brothers Co. by Robertson Paper Box Co. Inc.

Ingenuity of Construction: First award to Morton Salt Tablet Dispenser, made for Morton Salt Co. by The Richardson Taylor-Globe Corp. This combination container-dispenser, an inexpensive throw-away unit, was developed as an economical substitute for the expensive metal or plastic permanent refillable units formerly used for this purpose in industrial organizations. The old units were subject to severe corrosive action of salt and soon developed a poor and rusty appearance. The new package is of six panel construction, with two of the panels creating a pocket for a wall bracket and giving added strength to the dispenser. The dispensing wheel through which the tablets drop is made of plastic. Awards of merit: Ray-O-Vac Jumble Battery Display, made by American Box Board Co. for Ray-O-Vac Co.; Oppenheim's Suit Box, made for Oppenheim's, Inc., by American Box Board Co.; Flavoripe Ice Cream Topping Carrier, by The Bradley & Gilbert Co. for The Flavoripe Co., Inc.; High Grade Tobacco Mixtures Display, by Carton Service, Inc., for Mail Pouch Tobacco Co., Div. of Bloch Brothers Tobacco Co.; Coty Cosmetics Family, made for Coty by Container Corp. of America; Wamsutta Supercale Thermocover, for Wamsutta Mills, Inc., by Container Corp. of America; Pro "59" Toothbrush Display, made for Prophylactic Brush Co. by Sample-Durick Co., Inc.; Good Humor I-Stix and Ice Cream, made by Edwin J. Schoettle Co. for Good Humor Corporation; Hazel Bishop Nail Polish Display, for Hazel Bishop, Inc., by Trenton Folding Box Co.

III. Best Potential New Volume Use for Paperboard. Three entries tied for first award in this category. They were a sun visor made for Humble Oil Co. by Container Corp. of America, another sun visor made by the Newth-Morris Box Corp. of Florida for Hot Shoppes, Inc., and a Christmas-tree stand made by the same company for Knox Products, Inc. Both the sun visors were printed in two-color letterpress on bleached sulphate board, while the tree stand was printed onecolor letterpress, on kraft board, waxcoated to make it waterproof. The stand is shipped flat to the customer and easily assembled. It is sold through retail outlets and also in bulk direct to Christmas retailers who mount it and sell it with the tree.

Awards of merit: "Pak-A-Long," made for Safeway Stores, Inc., by Andre Paper Box Co., and Super Kem-Tone "Applikay," made by The Ohio Boxboard Co. for The Sherwin-Williams Co. The Pak-A-Long, made in 2-, 3- and 5-lb. sizes, is described as the answer to supermarket need for a package which will increase the unit sale and reduce spoilage due to ordi-(This article continued on page 168)

Society of Typographic Arts packaging award

An automatic electric blanket box for Sears Roebuck & Co. was this year's winner of the Society of Typographic Arts packaging award, on exhibit at the Art Institute of Chicago.

According to the awards committee, delicate handling of a difficult printing problem in addition to economic considerations was the basis of the award.

The design motif suggests the coolness of night and the warmth of the sun. The symbols are repeated on the base of the box so that they show when the cover is removed and placed beneath the base for display. An interesting design feature is the use of three basic colors—a grayish black, yel-

low and blue—to achieve a five-color effect. The printing method is letterpress using transparent inks.

The base is corrugated board, overprinted before fabrication in gray with the symbols in blue. One symbol is eliminated on the ends to accomodate paste-on labels. The cover is varnished and colors tie in with the light blue, dark blue and yellow used to identify Sears 4-star, top-quality items.

CREDITS: Designer, Bruce Beck of Whitaker-Guernsey design group, 210 E. Ohio St., Chicago. Solid kraft folding cover, Paper Package Co., 1036 N. Capitol Ave., Indianapolis 6, Ind. Folding corrugated base, Inland Container Corp., 700 W. Morris St., Indianapolis 6.



Self-dispensers that offer balanced film assortments



Colorful new metal dispensers which make it easier to sell Ansco film and encourage camera fans to buy extra rolls are being supplied free of charge to retailers by the makers of Ansco films. The dispensers, designed either as hang-up units or counter stands, contain single rolls of four sizes of film or three-roll economy packs in three size ranges.

The dispensers are of the gravity replenishment type with individual packages displayed at the take-off slot at the bottom of each unit. In the case of the single roll dispenser, four channels display one of each size represented—127, 120, 620 and 616. The popularity of each size of film governs the number of rolls of each furnished in the dispenser, the company reports, thus providing dealers with a balanced selection.

In addition to offering convenience and self-service potentials to retailers, the dispenser wins eye-level display space for Ansco. The company colors—red, white and blue—and the familiar logotype provide distinctive product identification with a minimum expenditure of space.

CREDIT: Metal dispensers, Davidson-Hansen, Inc., New York.

DISPLAY

It's all done with mirrors that shoppers can't resist

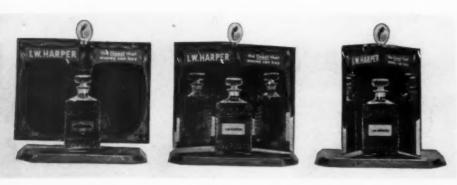
Human nature being what it is, few liquor store customers, male or female, can resist the temptation to straighten their ties or inspect their make-ups in the new I. W. Harper mirror display. The mirrors—part of the distiller's new wood-and-glass, permanent display

—act as a natural lead-in for the eye to the featured decanter bottle and point up the I. W. Harper brand name with a flourish.

The "Moving Mirror" display, as it is called, has the additional advantage of motion as an attention getter.

Power is supplied by a miniature electric clock motor, AC, measuring barely two inches in diameter. No matter what position the mirrors are in when viewed, some facet of the decanter bottle and brand name is visible—giving nearly 100% effective exposure to the product, as demonstrated at left.

CREDIT: Display, Einson-Freeman Co., Inc., Long Island City.



Springtime duet

With a simple, economical paperboard counter unit Lentheric dramatizes a combination offer introducing its spring shade of Sta-put Lipstick, called "First Robbin," with a trial flacon of its "Miracle" perfume. The lipstick and trial perfume bottle are tied together with a crisp, white ribbon which crackles with freshness. A gay romanticized version of the cheerful robin lends graphic impact to the display, which occupies a minimum of space that encourages placement at high-traffic spots and use as a tie-in with fashion accessories as well as on the perfume counter.

The counter stand, designed for frontline space on drug and department store cosmetic counters, contains an even dozen of the combination units—each recessed into its own die-cut niche in the counter stand. Three separate announcements of the introductory offer surround the packages on three sides. Price of the lipstick-perfume offer is \$1.00 plus tax. Similar counter units are being used for the spring promotion of Lentheric's "Red Lilac" lipstick in combination with "Red Lilac" perfume.

CREDIT: Display, Louis Bressoud, New York.



GALLERY

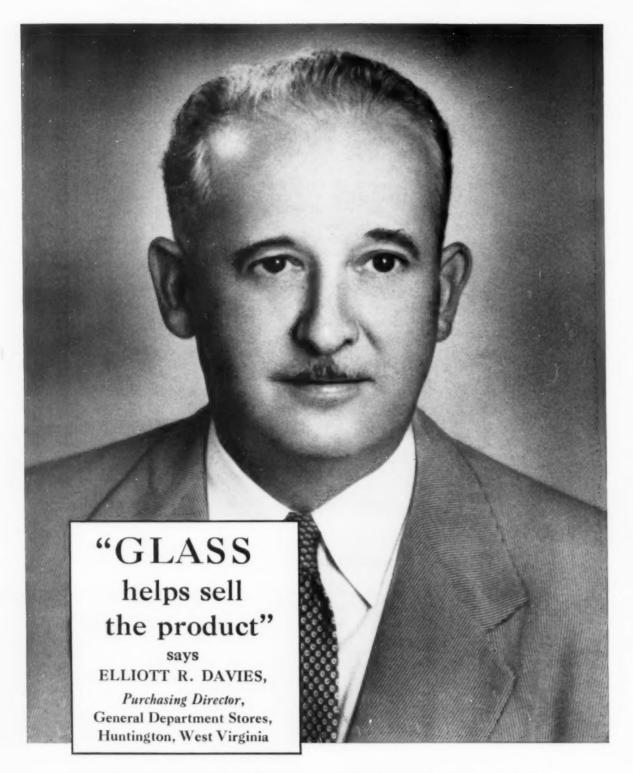
Water-power motion keeps the bottle pouring

As long as there is water in this novel display unit the Echo Spring's bottle will appear to pour forth the product of Melrose Distillers. The display operates on the same principle as the currently-popular "dippy bird" toy novelties. Two basic precepts are relied upon to assure the success of this unit: first, motion itself is counted upon to stop the casual glance; second, the mysterious continuous swing of the bottle, without any apparent source of motivation, provides the staying power for the attention. No outside electrical or mechanical power is needed to animate the unit—a fact which when coupled with the simplicity of principle and construction makes for economical, trouble-free operation.

The permanent display further dramatizes the Echo Spring's name by a series of receding ridges. The legend beneath the oscillating bottle suggests pleasantly, "A treat worth repeating."

CREDIT: Display, Lawson & Lawson, Inc., New York.





"It seems to us that practically all of the foods we have in glass are very appealing to our trade; further, glass is a definite asset in displaying merchandise, and an advantage to the shopper in actually letting her see what she is buying. As new appetite-appealing products

become available in glass, the test of time invariably indicates that glass helps to sell the product. We believe additional vegetable and fruit items in glass would have a sales-stimulating influence on this important food store commodity classification."



Glass is the perfect self-selling package. Its color and sparkle attract . . . its honesty convinces.



A glass package is convenient to use. Housewives like the visible inventory they get with glass, and the safe, convenient way foods in glass can be stored.



This attractive glass decanter is available in 8-oz., 12-oz., 16-oz., quart and half-gallon sizes.

Today's self-service selling demands a self-selling package ... GLASS!

That's why so many foods are now packed in glass. Table syrup, for example, is now sold almost entirely in glass, because the glass package is an attractive easy-to-use table package.

There's no better way to sell a product than to let it sell itself through visual display. Prod-

ucts in glass today are geared to self-selling. The cartons are easy to handle, easy to cut for display.

So remember . . . today's self-service selling demands a self-selling package . . . GLASS . . . for fast turnover!

DURAGLAS CONTAINERS
AN (1) PRODUCT

OWENS-ILLINOIS
GENERAL OFFICES · TOLEDO 1, OHIO



METAL-STAYED CORNERS on folding lock-flap cartons and use of die-cut inserts give necessary protection to valves and parts used in heating and refrigeration industry. Design and color of box sell brand name and improved end labels give full stock-shelf information.

Accent on function

A-P Controls' packaging offers tips for industrial products which need container strength and clear identification above all

Functional packaging is fundamental at the plant of A-P Controls Corp., Milwaukee, a leading producer of expansion valves, solenoid valves and other types of precision controls widely used in Leating, refrigeration and air-conditioning equipment.

Since these industrial products are distributed through jobbers or shipped directly to equipment manufacturers, there is no element of self-service involved and the containers are expected to meet just two primary aims— product protection and clear-cut identification. The latter point is particularly important in view of the variety of

equipment types and sizes included and the fact that they are used only with specified refrigerants.

Recently this company announced an important change in the group of packages used for its refrigeration and air-conditioning controls, adopting an integrated family of eight topopening metal-edged folding boxes which are used with a series of diecut paperboard and corrugated inserts fitting the many products in the line. However, the change-over was not limited to box construction. Surface-design treatment of the packages was also altered and an improved labeling procedure inaugurated which has

eliminated waste and provided greatly improved product identification for the company's line of precision controls.

Details of the new A-P packaging program were worked out by the company's own Standards and Carton Design departments, which made a thorough analysis of the former packages and summarized recommendations in a report to top management.

In common with many industrial products, the A-P refrigeration controls have several characteristics which tend to complicate the packaging problem. Relatively heavy,

these precision metal parts must also be protected adequately against mechanical damage in transit and handling. Furthermore, many of the units include coils of capillary tubing and other projecting parts which require snug-fitting inserts or platforms to keep them from shaking around loosely within the boxes.

It is interesting to note that in adopting metal-edged boxes, A-P was returning to a form of package which had been used earlier by the company with good success. In the interim, the organization had tried conventional end-opening folding cartons without corner reinforcement, having a different printed design and color treatment. These cartons, printed in light blue and black on kraft fibreboard, utilized printed labels on the end flap for specific product identification. In an effort to hold box sizes to a minimum, these cartons were used in three basic sizes, making use of a wide variety of scored and die-cut inserts in which the products were nested or held for secure packing.

In actual service, the unreinforced packages demonstrated several shortcomings. One of their most serious limitations was the fact that they lacked sufficient strength for stacking on jobbers' shelves or in plant supply rooms. When stacked high, the weight of the metal parts frequently caused crushing and damage of the containers. Since inserts did not extend the full height of the packages, top panels had a tendency to sink in under pressure. Variations in carton height also made it virtually impossible to stack the boxes in a neat, stable arrangement. Due to the tendency of some of the packages to spring open in handling or stacking, it was frequently found necessary to secure the flaps with pressure-sensitive tape, requiring additional time and labor.

Another disadvantage of the old cartons was their tendency to become soiled in handling and storage. The light blue background and white reverse lettering immediately showed even the smallest amount of dust or dirt, making it almost impossible to handle the packages with soiled or greasy hands without marking them up badly. This problem highlighted the fact that light-colored cartons are often a poor choice for industrial products which during normal distribution and storage may be exposed

to grease or other related types of soilage.

Many of the A-P refrigeration components bear a tamperproof metal-tag seal which carries a factory-coded guarantee expiration date. From time to time, merchandise held in jobber inventories is given a revised code dating. This involves the use of a special tool which impresses the new marking directly in the metal tag. With the side-opening boxes used earlier, recoding was a laborious procedure because the boxes had to be opened and the merchandise slid out of the package to reach the tag. Then it was returned to the carton, which frequently required resealing with pressure-sensitive tape. With the new top-opening boxes, recoding is accomplished quickly without removing the controls from the package. In packing the boxes, special care is taken to place the code seal at the top of the product, where it is readily accessible.

With the previous packages, A-P followed the practice of having quantities of labels printed in advance and held in inventory until needed. Analysis of this procedure showed that it often resulted in the discarding of obsolete labels with considerable waste. This problem has now been overcome through adoption of a new policy under which label forms are imprinted only as required, using the company's own duplicating equip-

ment. The new labels, many of which carry a line drawing indicating the general type of equipment contained in the box, are printed in larger and bolder type than those used earlier, making them more legible and facilitating order filling by the jobber or selection from plant inventory. As a further convenience, the labels are now made in three colors-bright vellow, blue and white with red stripe at the bottom-which immediately signal the type of refrigerant with which the controls are to be used (Freon 12, Freon 22 or methyl chloride). These are standard code colors used throughout the industry to designate the refrigerants used in various installations.

In returning to metal-edged boxes, A-P Controls Corp. also worked out certain construction and printing refinements over the reinforced boxes which had been used prior to adoption of the intermediate cartons. The earlier boxes had been printed in yellow on all-kraft sulphate board having green liner stock. This combination resulted in rather "washedout" lettering due to the tendency of the green background to tone down the brilliance of the printing. On the new boxes, much sharper, crisper lettering is obtained by doing the allover printing in green on kraft sulphate board with a bright yellow liner. This new printing approach results in much greater eye appeal for

PACKAGING LINE, showing machine in background that sets up and stays boxes. Packers pick up equipment items from metal conveyor and place them in boxes, with proper die-cut insert where needed. As final step of the packaging operation, printed label is applied to end panel.



the cartons as well as improved legibility of the type matter. The dark green of the new cartons does not soil easily and the package maintains an attractive appearance through extensive handling and storage.

Except for one size, all the new packages are made with blank end panels for use with the printed labels. The one box which carries specific product information is a small carton measuring approximately 4½ by 2½ by 1% in. which is used for the Model 204-C automatic expansion valve, a high-volume item. When this same package is utilized for Model 204-C valves having different specifications to meet special installation requirements, a supplementary label is pasted directly over that printed on one end panel of the carton. This arrangement greatly simplifies packaging procedure on this item.

Among the improved construction

features of the new boxes is the use of a notched locking tab at the center of the top carton flap, supplementing end lock slots. This prevents packages from bulging or popping open even when the products are stacked high. The secure closure thus obtained also eliminates the need for sealing the flaps with pressure-sensitive tape, either at the factory or when boxes must be re-opened in jobbers' inventories to change guarantee tag codes, Another marked advancement is the standardization of package heights (see photo), which makes it possible to stack the boxes securely and produces an orderly arrangement which greatly facilitates taking inventory or selecting equipment items from the shelves.

A further interesting feature is the fact that all inserts are now designed to match the height of the boxes in which they are used, giving the packages much greater resistance to crushing of the top panel when

Whereas the previous group of unreinforced boxes frequently resulted in considerable waste of space because of overly stringent reduction of package sizes, the new program strikes a reasonable balance between minimum package sizes and the number of die-cut inserts required to accommodate the various products packaged. The net result of this phase of the packaging set-up is a reduction in shipping and storage costs, an important saving in paperboard and elimination of much lost motion on the packing line. With the previous packages, a number of complicated inserts were used which required excessive amounts of material and entailed considerable preparatory folding and preparation on the packing line before the items could be placed in the boxes.

Under the revised program, the metal-edged boxes, delivered to the plant in flat blanks, are set up rapidly on a special machine requiring one operator, which forms the package and clinches the metal corner stays in position. Cartons are then taken to the adjacent packing line, where packers are also supplied with quantities of insert blanks matching the type of equipment being packaged. Valves and other items are delivered via conveyor directly to the origin of the packaging line after passing through an overhead system during which a protective finish coating is

allowed to dry.

As the parts move down the line on a metal conveyor belt, packers insert the equipment in the folded inserts, place them in the boxes and snap the cartons securely shut, making sure that the locks are engaged. The metal code tags are wired to the equipment, in a readily accessible position, before the lids are closed. As boxes reach the end of the line, another operator applies the correct type of label, after which they are placed in corrugated shippers. The individual labels are fed through a manually controlled machine which applies adhesive to the back and ejects them, ready to be applied to the cartons,

CREDITS: Metal-edged boxes, inserts and set-up machine, National Metal Edge Box Co., Callowhill at 12 St., Philadelphia, Pa. Label gluing machine, Potdevin Machine Co., Teterboro, N. J.



CONVENIENCE of the top-opening flap is accessibility of metal guarantee tag which jobber must recode with special tool. This view also shows triple locking arrangement on top flap, which holds without taping. Note documentary-type line drawing of part on end label. Labels are color-coded according to type of refrigerant for which valve is suitable.



ORDERLY STOCK is assured by uniformity of new boxes. Metal stayed boxes hold up even when stacked seven high with heavy metal contents; previous nonreinforced boxes tended to collapse under load.

Another Prestige Product Packaged by BURT





Thanks to modernization and skillful planning, the Warren Featherbone Company has not only cut packaging costs drastically, but can now make the sales-compelling claim that its baby garments are germ-free.

Cartons are made in various sizes from inexpensive die-cut blanks by our Model PA, which has a speed of 40 to 100 cartons a minute. This machine delivers the open cartons onto a conveyor that carries them to filling stations and to our PC machine, which automatically closes the lids. Closed cartons are finally conveyed to our FA wrapping machine, which seals them in cellophane.

The entire packaging operation takes place under ultra-violet irradiation, giving assurance that Warren bibs and baby pants are germ-free—a strong appeal to mothers.

Where packaging is at its highest development, there you will find "Package" machines.

Can your packaging be improved too?

Consult our nearest office.

PACKAGE MACHINERY COMPANY · Springfield, Massachusetts

NEW YORK PHILADELPHIA BOSTON CLEVELAND CHICAGO
ATLANTA DALLAS DENVER LOS ANGELES SAN FRANCISCO
SEATTLE TORONTO MEXICO, D.F.



FA wrapping machine automatically wraps cartons in sparkling cellophane.



TECHNICAL

ENGINEERING • METHODS • TESTING

Charles A. Southwick Jr. • Technical Editor

Saran film today

A review of its development and summary of present properties and applications in packaging.

By F. C. DULMAGE, JR.*

Over a hundred years ago a French chemist, Regnault (1)[†] encountered a new fluid which later proved to be unsymmetrical dichloroethylene, now commonly known as vinylidene chloride, or saran. From then until not too many years ago this material was rarely mentioned in literature.

In 1922 B. T. Brooks (2) indicated that halogenated ethylenes other than vinyl chloride and vinyl bromide show a tendency toward polymerization. In 1930 Staudinger and Feisst (3) reported on the polymerization of an impure dichloroethylene and indicated that the liquid polymerizes quickly in light, or slowly when kept in the dark. This polymeric material is completely saturated and its structure is represented by the structural formula -(CH₂ - CCl₂)_n-. Feisst reported the polymer to be crystalline, as was later confirmed by G. Natta and R. Regamonti (4).

Chemical and physical structure

Vinylidene chloride has petroleum and brine for its basic raw materials. Ethylene from cracked petroleum and chlorine from the electrolysis of brine are combined to produce trichloroethane, which is converted to vinylidene chloride.

Vinylidene chloride can be polymerized into a long straight chain homopolymer, as shown in Fig. 2. This

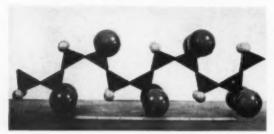


 CHEESE WRAPS represent a big use of saran film today. Among other important food-product fields are meat products and dried fruits.

is a highly crystalline resin that is characterized by a sharp melting point, a high degree of chemical resistance and a low order of thermal stability. Consequently, polyvinylidene chloride is difficult to formulate into useful articles.

It was found that the addition of other monomers such as vinyl chloride or acrylonitrile in small amounts yielded copolymers that had many of the highly desirable properties of the polyvinylidene chloride and yet would permit fabrication into films, monofilaments and fibres. Currently, the film of major commercial interest is produced from a copolymer of vinylidene chloride and vinyl chloride. This resin, and the film, are now generally known in the trade as saran

^{*}Plastics Technical Service, Dow Chemical Co., Midland, Mich. †Numbers in parentheses identify "References" appended.



2. HOMOPOLYMERIC chain of polyvinylidene chloride (saran) evidences a long, straight chain pattern. The large spheres represent chlorine and the small spheres hydrogen.

and will be identified as such in the remainder of this discussion.

As we pointed out earlier, saran exhibits a crystalline structure. This property can be demonstrated by its X-ray diffraction pattern. Most organic thermoplastics exist in an amorphous state and do not exhibit crystallinity. Under certain conditions saran can be made amorphous, as with heat. Fig. 3 is a diffraction pattern of saran in this state. When allowed to return to room temperature, saran gradually changes to its normal crystalline state, showing a ring-like diffraction pattern as in Fig. 4. Amorphous saran can also be converted by mechanical working into an oriented crystalline state and, when examined by X-ray, shows a lattice diffraction pattern like that in Fig. 5. Shown in Fig. 6 is a crossed Polaroid picture of saran in its three states: unoriented crystalline, amorphous and oriented crystalline.

Development

The Dow Chemical Co. began its commercial development with vinyl-

idene chloride in 1939. It was first commercially introduced as a monofilament. Later it was used as a molding material.

In 1942 the Armed Forces called upon saran for many uses, such as tow targets, inner soles, tent screen and braided insulation for radar. As a molding material it was used in sun stills to make sea water drinkable, as well as for battery separators and many other items.

Saran film is produced by an extrusion process. In this process the orientation takes place by changing the tube-like amorphous material as it is extruded into a thinner-walled tube by blowing. This multi-directional orientation can produce strong, flexible films from 0.0005 in. thick to 0.002 in. and heavier, under certain conditions.

Fig. 7 shows the film extrusion process.

This product, like the other forms of fabricated saran, was immediately taken over by the Armed Forces, where it was used as a moisture-barrier material to package guns, electrical equipment and many other essential military items.

Saran film proved itself and came home from war in 1945. Unfortunately, the film used during the war was not adaptable to food packaging. Consequently, we had to initiate work to develop an acceptable food-packaging film. After formulating many films, including several new copolymers, our chemists came up with the 517 formulation (10). This was field tested and readily accepted by the food industry and was approved for use by the Meat Industry Division of the U. S. Department of Agriculture. This material was crystal clear, tough and had many outstanding physical properties. Properties of saran 517 film are shown in Figs. 9 and 10.

Properties and uses

Fig. 11 shows saran's exceptionally low gas permeability. This property is necessary in the preservation of full flavor and freshness of many food products. Saran film is considered an outstanding material for this type of packaging. Of course, this same protection can be achieved by laminating certain films to dissimilar materials, but as far as we know, saran is the only transparent film commercially available that can be used alone as a gas barrier under most conditions.

This film is primarily for food packaging. Present applications include cheese, meat packing, dried fruit and confectionery products. It is also used in the chemical, pharmaceutical and liquor industries.



3. X-RAY DIFFRACTION pattern of saran in amorphous state. Saran can be made amorphous under certain conditions, as with heat.



4. RING-LIKE PATTERN of saran in normal crystalline state, as revealed by X-ray diffraction, when allowed to return to room temperature.



5. MECHANICAL WORKING converts saran into oriented crystalline state, showing under X-ray a lattice diffraction pattern like this.

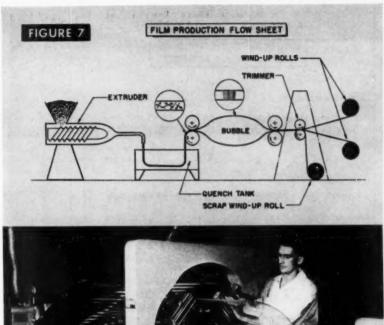
Saran film's outstanding chemical resistance and low water-vapor transmission make it an ideal cap-liner material. Fig. 12 demonstrates the effectiveness of saran film as a cap liner.

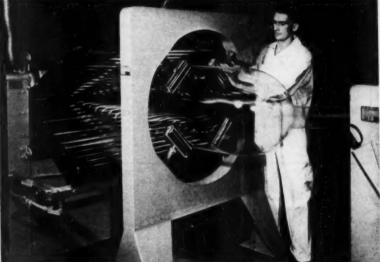
The film is also utilized for special uses, such as the packaging of ground-in-oil paint pigments, putty and caulking compounds and many other products.

An unusual and interesting use for saran film is in the Rheemlined drum. The Rheem company actually laminates saran film to the sheet metal before forming and welding it into a finished drum. Saran film is used here because of its outstanding toughness and chemical resistance. It has been reported that many frozen-food processers and shippers are using this type of drum as a replacement for more expensive stainless-steel drums. Re-use of this Rheemlined drum is reported to be satisfactory. However, the packing of hot-processed foods is not recommended at the present time due to possible delamination of the film. This is caused by the shrinkage of the saran film at elevated temperatures. Pre-shrunk or partially deoriented saran film may solve this problem; present work in this direction indicates considerable promise.

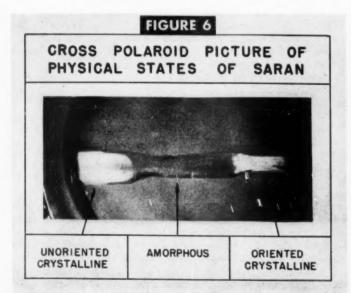
Sealing methods

Saran film is sometimes referred to as being an unusual or unorthodox material. In many respects it is, but so are its properties. Therefore it may require somewhat unusual methods of fabrication. For example, saran film





8. BUBBLE of saran film as produced during extrusion process.



cannot be heat sealed in the same manner as in heat sealing cellophane or some thermoplastic-resin films. This is due in part to the very small difference between its sharp melting point and softening point, as well as to its tendency to shrink under heat. Fig. 13 demonstrates this. We have, however, found a solution to this problem by using electronic sealing.

Many automatic bag machines, as well as fabricating and filling equipment being used with saran film, utilize this method of sealing. It's both fast and positive.

Fig. 14 illustrates two methods of sealing.

Here it can be seen that the maximum heat developed by the electronic method is at the interface of the adjoining films. Thus, the films are welded together without undue loss

FIGURE 9

CHEMICAL RESISTANCE OF SARAN FILMS AT 25°C.

| Dilute Mineral Acids | Excellent |
|---|--------------|
| Concentrated Mineral Acid | |
| (except H ₂ SO ₄ & HNO ₂) | Excellent |
| Organic Acids | Excellent |
| Alkalies (except NH ₄ OH) | Good |
| Alcohols | Excellent |
| Aliphatic Hydrocarbons | Excellent |
| Oils, Fats and Waxes | Excellent |
| Pharmaceuticals & Detergents | Excellent |
| Organic solvents (except cyclic ethers | |
| & cyclic ketones) | Good to fair |
| Note: Chemical resistance decreases | |

| | | 100 GAGE |
|------------|--|--|
| GENERAL | Gage in inches Specific Gravity Area Factor, approx.sq. in/lb. Water Vapor Transmission gms./100sq.in./24 hrs.at 100°F. and 90% R.H. | 0.001" 1.68 16,300 |
| | Water Absorption Gas Transmission | Negligible See Table II |
| THERMAL | Sealing Temperature Burning Rate (ASTM D568-40) Specific Heat b.t.u/lb./*F. Thermal Conductivity b.t.u/sq.ft/ sec/*F./in. Resistance to Heat-intermittent Resistance to Heat-continuous Resistance to Cold Dimensional Stability | 280 to 300 °F. Self Extinguishing 0.32 i.8 x 10 ⁻⁴ Up to 200 °F. Up to 140 °F. Good flexibility at 0 °F. See Fig. 37. |
| MECHANICAL | Tensile Strength Ib/sq.in. Percent Elongation Bursting Strength Ib/sq.in:Mullen Teor Strength-gms Elmendorf Folding Endurance-MIT I Kg. load Drop Impact-l"dia. steel ball | 10-20 |
| OPTICAL | Refractive Index Transmission of White Light Ultraviolet Cutoff Transmission of Infrared Resistance to Sunlight | 1.602 90% o 3000A 88% |

of orientation because of the proper concentration of heat and the extreme speed with which it is accomplished; usually this is only a fraction of a second. Saran has a tendency to adhere to hot metal. This problem is completely eliminated with electronic sealing, as the electrodes remain rela-

in temperature.

tively cool. Multiple plies of film can also be sealed together in this manner; on one application 16 plies of 2mil film were readily sealed using this system.

Not all packaging applications call for a true seal or weld. For example, natural cheese overwraps are very satisfactory when used with what we refer to as a "peel-type seal." This seal is very similar to that obtained with certain packaging materials that are coated to permit heat sealing. This type of closure is very satisfactory, as it will produce an airtight, moistureproof seal. Earlier we mentioned that saran may require unusual methods of fabrication. This seal is made on the same type of equipment as is commonly used for hand sealing, except that a silicone-treated glass cloth is placed over the heating surface to prevent the saran film from sticking to the hot metal.

Overwraps have been made on automatic equipment with saran film using this type of seal also. Here, too, the sealing surface must be properly prepared to make the seal. This includes a reasonably close heat control and a surface covered with a specially coated glass cloth.

On overwrap equipment it is necessary to squeeze the package between the hot surfaces and care must be taken not to slide it over the heating surfaces. If sliding is attempted, it will usually result in a "burn through" or scuffed seal, and both are apt to cause leaks. Delayed-action type or thermoplastic-coated labels can also be used to seal handwrapped packages.

Many of our packaging applications are based upon the use of bags made by the converters. If bags or pouches are used, paper cappers or saddle labels faced with a thermoplastic coating can be used in conventional jaw-type sealers.

In addition, some of the better continuous-belt-type sealers can be used to seal saran bags or pouches. A continuous-type electronic top sealer has recently been developed.

Types of film

Saran film is available in a number of types. These vary in clarity and slip. The type used depends upon the end use. Sometimes a lessclingy film is used to facilitate handling on automatic machines; this usually means a more opaque film,

FIGURE 11

DRY GAS TRANSMISSION RATE OF SARAN FILM 517

| GAS | 517 |
|----------------|------------|
| CO2 | 2.4 |
| Nz | 0.11 |
| 02 | 0.56 |
| H ₂ | 13.4 |
| He | 33.0 |
| AIR | 0.15 |
| Freon FI2 | Negligible |

77°F. And 760 mm Hg. CC. per 100 sq. in. per 24 Hrs. per mil thickness.

Note: These values may vary slightly with individual lots of film.



12. EFFECTIVENESS of saran as a cap liner is shown by this photographic comparison of water-vapor losses shown by a liquid dentifrice under identical storage conditions with different cap liners.

such as A517 or B517. For luncheon meat or hand-wrapped packs, 517 film is preferred, as it practically seals itself.

Gauges from 0.0005 to 0.002 in. are commercially available in a single thickness. Some users prefer double-wound films—that is, two single thicknesses wound together. As pointed out, in our manufacturing process this can readily be supplied and it has a number of advantages. These are added toughness, more scuff resistance and less danger of leaks, tears, etc.

With double-wound saran film, printing can be locked in between the plies. This not only eliminates possible contamination of the product from the ink, but it also defeats the smear problem that is sometimes encountered on "cooked in the package" products, such as liver sausage. It also adds considerably to the gloss or depth of printing and over-all appearance of the package.

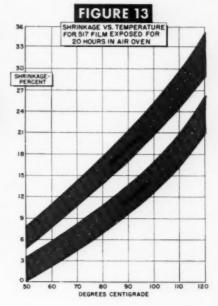
Potentialities

With its outstanding functional properties, low gas and moisture permeability, chemical resistance, clarity, good aging and flexibility over a wide temperature range, saran could possibly replace metal cans or glass jars in many applications, since it can withstand processing temperatures under proper conditions. As a container, it would be lighter to ship, easier to dispose of and perhaps more convenient to open. The latter property would certainly add to its appeal for picnic foods and the like.

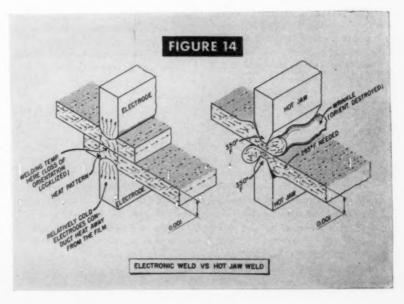
While flexible packaging has already been well received by our modern shoppers, we feel it's only the beginning. There are many products that can be packaged better in plastics, both rigid and flexible, providing they have the proper functional properties that will make them acceptable and more convenient for the housewife to use and saran film has already demonstrated its ability to meet these needs.

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Shock-mounting systems

Experimental and mathematical methods of analysis of the responses of cushioning devices. By ROBERT L. McKAY*

W wk in the author's laboratory on shock-mounting systems has centered around the test and evaluation of various containers or packages as supplied by different manufacturers. These containers or packages will be treated, for purposes of this paper, as arrays or assemblies which provide protection of the contained item against shock and vibration, although preservation, ease of loading and unloading, identification and other functions are required. That is, while the requirement for protection against damage from shock and vibration is highly important, other factors and requirements must also be tested and evaluated.

One of the most useful concepts, and a tool that has afforded the author much gratification, will be found in the method of transient analysis applied with respect to the center of mass of the contained item. While a full discussion of this method of analysis is beyond the scope of this paper, some general background remarks may well be written.

Consider an array wherein the external container has been rigidly fastened to a mass whose magnitude is several times that of the array. Let the contained item be displaced in known increments along a major axis until the limiting or bottoming condition of the mounting system has been approached. By plotting the force produced by a known displacement we obtain a static load curve of the mounting system with respect to this particular major axis.

From examination of the physics of this situation it can be seen that we have introduced a certain amount of energy into the system. This energy corresponds to the area under the curve and can be termed the amount of load. To introduce a *transient*, we release this load under nearly instantaneous conditions. That is, we suddenly go from full load to no load.

Basically, this means that the potential energy shown by the area under the static load curve is released and allowed to dissipate over a period of time as shown by the motion of the contained item. The output of an accelerometer whose axis of sensitivity corresponds to the axis of motion of the contained item may be amplified and recorded to display the manner in which this potential energy is dissipated.

Let us consider a simple block diagram showing a single channel recording and display system of the type used to measure acceleration:

 $\boxed{1 \longrightarrow 2 \longrightarrow 3 \longrightarrow 4}$

*Department of the Army, Washington, D. C.; formerly Consultant, Packaging Development Branch, E.R.D.L., Fort Belvoir, Va.

PRECIS

Parameters which constitute the characteristic response of mounting systems are described using experimental methods of analysis. The term "mounting systems" is taken to include substances used as cushioning as well as systems where a definite positioning effect is provided. Where permissible, an analogous system and its study are included from the iterature dealing with the methods of electrical engineering and servomechanisms. Generally these latter methods are cited by reference and only a very brief portion of the analogous system is applied in this paper to indicate its usefulness to packaging research. Repeated applications of the method for measuring viscous friction constant (damping) have shown that an accuracy to within two thousandths is possible.

In the preceding diagram, where:

 . . . represents a transducer which responds to acceleration. That is, the electrical signal developed by this sensing device is a direct function of the acceleration to which the device is subjected.

(2) . . . represents a measurement type of amplifier whose amplification factor is constant from zero cycles per second (D. C.) to at least 100,000 cycles per second.¹ In addition, the amplifier must be designed to "pass" the voltage range developed by the transducer with no distortion or error. For precise work, one would obtain a plot of phase response as a function of frequency so that two or more channels could be compared. This amplifier may be in the form of a cathode-follower for some cases.

(3) . . . represents a power amplifier having the same characteristic design as (2) and capable of driving the recording-display mechanism (4). In most cases this amplifier would have a push-pull output stage for maximum usefulness and application.

(4) . . . represents the recordingdisplay mechanism which for maximum response would be a cathoderay tube and film-type design. The majority of available display mechanisms such as a pen-and-ink type have very low frequency response and cannot adequately handle a transient for this reason.

While beyond the scope of this paper, it can be shown that a transient is most easily studied as the total sum of a series of sine waves. In this manner the high-frequency components can be seen to have appreciable energy content and it is for this reason that measur's ment systems require a "flat" response to 100,000 cy les per second for packaging research. That is, while steady state displacement conditions are seldom

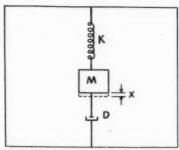
¹Adequate for nearly all packaging measurements taken on the contained item. A higher response would be needed for measurements taken on the container during shock-impact

of interest above 500 cycles per second, a much higher response is needed for the study of transient phenomena.²

Technical discussion

For purposes of this paper, we assume that the energy of shocks and impacts is presented to each type of container or package along one of three major axes, X, Y, Z. Where X is the lateral axis, Y is the longitudinal axis and Z is the vertical axis. We further assume that the mounting or cushloning system acts as a "single spring" lying along the particular selected major axis. Steady state displacements are assumed to cause the single spring to be displaced within its linear range, while transients or sheek impacts may cause the single spring to be displaced to its non-linear range. The assumption will be found valid for steady state displacements having moderate intensities and having frequencies which do not coincide with the resonance frequencies of the mounting system along the particular selected axis. At resonance, violent excursions of the contained item may cause the "single spring" to be driven to its non-linear range.

For a basic analysis, consider the array or simple system, shown as Fig. 1:



Where:

 \boldsymbol{M} , . . is the mass of the contained item,

K . . . is the spring constant of our "single spring,"

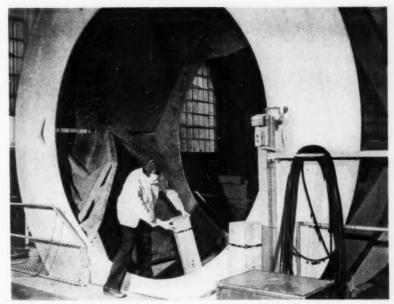
D... is the viscous friction constant,

x . . . is the displacement from rest position along the X axis.

Let the mass (M) be subjected to an acceleration upward and assign a positive sense to this direction. Then according to Newton's laws this can be written:

$$F_a = M \frac{d^2x}{dt^2} \tag{1}$$

"The inertia of most items plus the characteristics of their respective mounting systems tends to preclude steady state response to well below the 500-cycles-per-second limit.



THE AUTHOR is shown here conducting tests in an old-style rotary drum used to simulate the abuse of rough handling in shipment.

Where:

 $\frac{d^2x}{dt^2} \ \text{represents the acceleration producing the displacement } x.$

This force acts to move the mass above the reference line by an amount (x) and the spring is thereby compressed so that an opposing force is exerted on the mass downward and we assign a negative sense to this direction. This force can be written:

$$F_{b} = -Kx \tag{2}$$

Where:

K represents the spring constant. Now since the mass moved upward with a certain velocity, a *resistive* force is developed from the viscous friction constant of the "single spring" and is exerted downward. Hence we assign a negative sign to this force.

This force is written:

$$F_c = -D \frac{dx}{dt}$$
 (3)

Where

 $\frac{dx}{dt}$ represents the velocity and D represents the viscous friction constant.

Again from Newton's laws, the sum of the forces acting on the *contained item* must equal zero so we can write:

$$M \frac{d^2x}{dt^2} + D \frac{dx}{dt} + Kx = O$$
 (4)

From the literature of mathematics we find the *solution* of this equation for damped oscillatory motion to be:

$$x = Xe^{-\frac{Dt}{2M}\cos(wt - \emptyset)}$$
 (5)

Here:

x is the peak displacement amplitude,

 $_{e}-\frac{Dt}{2M}.$. is the damped amplitude,

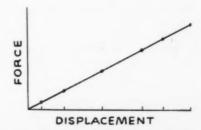
_ Dt

 $-\frac{DC}{2M}$ is the logarithmic decrement,

 $\cos (wt - \emptyset)$ tells us that the wave is of the form of a cosine operated on by $e = \frac{Dt}{2M}$

An experimental method of studying these parameters is set forth as fol-

Experimental method. Simply stated, let us "hook on" to the contained item (see Fig. 1) at one end, pull it up a small amount (shown as x in Fig. 1), write down the amount of force required and repeat the operation until we have the following graph or curve:

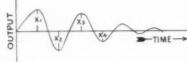


Since the area under the curve repre-



MULTI-CHANNEL acceleration measurement system is used by the author to record and study effects of dropping and transient tests.

sents the amount of energy that has been introduced into the system, we can define the amount of load units accurately. Next we shall very quickly release this load and let the accelerometer record the story of what the contained item undergoes. Accordingly an *output record* of an accelerometer whose axis of sensitivity lies along the axis of motion for the system will have the following form:



Now, because we apply the transient within the linear range of the system and experimentally restrict the system to one degree of freedom, this output curve is proportional to actual displacement of the contained item. That is, we can assign the symbols:

$$X_1$$
 X_2 X_3 X_4

to represent the amplitude of successive displacements received by the contained item along the x axis as the energy released into the system is dissipated.

The ratio of the amplitude of successive displacements is:

$$R = \frac{x_2}{x_1} = \frac{x_3}{x_2} = \frac{x_4}{x_3}$$
 (6)

(Note that this is a dimensionless value and that we can expect an accuracy which is limited only by the experimental error.) Once we have a value for R from these direct measurements, we can determine the viscous friction constant (D) by the simple formula:

$$D = \frac{(2M)\log e}{T} \frac{1}{R} \tag{7}$$

Where:

M is the weight of the contained item.

log e is the logarithm to the base e, T is the time of a half wave as shown on the output record.

The *output curve* from our accelerometer thus can be studied to determine emperically the following parameters:

- 1. Peak acceleration,
- 2. Maximum displacement,
- 3. Total time of phenomena,
- Number of reversals of the wave form (i.e. the changes of sign),
- Frequency of resonance of the system with respect to a known axis,
- Value of the viscous friction constant, D,
- Maximum dynamic force exerted on the mounting system.

The static load curve defines the amount of energy that we have introduced into the system so that we can perform an analysis of dissipation under known conditions.

We merely read the peak acceleration from the curve and multiply this by the weight of the item to find maximum dynamic force. Then from the load displacement curve we can read the displacement corresponding to peak acceleration. Knowing the speed of our recording medium, we at once have the total time of phenomena and the frequency of resonance of the system with respect to the particular axis under study. The number of changes of sign or reversals of the wave form may be directly read from the curve.

Extension of the experimental method can be brought about so that a clearer understanding of shock and vibration encountered in actual shipment is possible. Briefly, this is done by dropping the entire container array so that it falls accurately along a major axis. (Note that the transient test has been applied before to each respective major axis and that data are at hand showing the corresponding response.)

Drops are first made so that little or no rebound takes place; hence the contained item behaves very nearly the same as when the transient test was applied. (Note carefully that the key concept lies in the motion of the center of mass, i.e., center of gravity of the contained item.) That is, we conceive of the drop energy as causing the contained item to displace the mounting system so that the energy of the drop is stored momentarily, then dissipated just as in the transient test.

Increasing the height of drop (along a major axis) causes the amount of rebound to increase so that we can study the progressive effect of this (rebound) factor. That is, our records show to what extent rebound causes changes in motion of the contained item as compared to the transient test.

Lastly, random drops are made so that the container array falls along an axis other than the three major ones and we again compare the motion of the contained item against that resulting from the transient test. (Here we use nine accelerometers, as discussed later on, so that we can determine along which axis the maximum drop effect reached the contained item.)

Methods to define the efficiency of a mounting system should of course be based upon the protection afforded to the contained item. Failure of the mounting system would be considered to have taken place when the desired protection is no longer provided. That is, one would require a table of criteria that defines what the

TABLE I-CRITERIA OF SHOCK AND VIBRATION LIMITS OF ITEM

| SHOCK (applied 50 times along ed | ich axis) | |
|----------------------------------|-----------|-----------------|
| | Magnitude | Maximum duratio |
| Lateral (X) axis | 10 G | 5 milliseconds |
| Longitudinal (Y) axis | 40 G | 45 milliseconds |
| Vertical (Z) axis | 10 G | 5 milliseconds |
| VIBRATION | | |
| Resonance frequencies | | Test time |
| Along X | 7.2 cps | 2 hrs.° |
| Along Y | 2.3 cps | 2 hrs. |
| Along Z | 2.3 cps | 2 hrs. |

*Let us say that the item has been subjected to steady state displacement along X and Z for a 2-hr. period, respectively, and subjected to shock as shown, then failure of the critical element took place when the item was given steady state displacement for 2 hrs. along X.

item can withstand before it fails at some critical element or integral part. This table would be obtained by a series of non-destructive tests so that the failure of one part does not cause full destruction of the item. Such a table might take the form of Table I.

It can be seen that this particular item has an axis of strength. (i.e. the longitudinal [Y] axis). One would therefore make use of this axis of strength by designing a mounting system which tended to reflect the effects of dropping and vibration to this axis. That is, the unbalance of forces caused by drops or vibrations along any axis would be "seen" along the strongest axis of the item.

For a very crude illustration concerning drops, the item might be gimbal mounted so that this strong axis is always vertical. One would further design the mounting system so that the critical or resonance frequencies of the item received minimum energy. In other words, the mounting system would have resonance frequencies that are higher than those of the critical element with respect to a particular axis. (The reader can easily visualize the extreme destruction that takes place should the mounting system have a resonance frequency that is identical to that of the critical element. In such a case the critical element of the item would be quite violently displaced by steady state displacement of less than 1 G applied to the container or package along that particular axis.)

Generally, the efficiency of the mounting system will be determined from two major considerations:

(a) Protection of the item to within the shock limits defined by tests directly upon the item.

(b) Protection of the item from undue vibration at the resonance frequencies of a critical element. Work in the author's laboratory in testing cylindrical items led to acceptance of a standard or uniform method of positioning nine accelerometers about the contained item. These nine accelerometers are positioned as follows:

(a) Three accelerometers at 120deg, separation in a plane passing through the center of mass of the contained item at right angles to the longitudinal axis.

(b) Three accelerometers at each end of the longitudinal axis placed to sense acceleration along the lateral, longitudinal and vertical axes, respectively.

For rectangular (cross-section) items, six accelerometers are used with one on each face to sense acceleration along the major axis that is normal to the face. In this manner the "acceleration picture" shows just what is experienced by the contained item under shock tests and vibration tests. One has merely to compare the outputs of these instruments against the criteria for the item to evaluate the mounting system. Further, while beyond the scope of this paper, one can construct a force diagram or plot the accelerations received by the contained item and, by finding the resultant of these forces, determine in what direction the maximum acceleration is received.

An analogous system from electrical engineering may be introduced by showing a block diagram to represent a container being transported by rail common carrier. Consider the following:

$$\bigcirc \rightarrow \boxed{2} \rightarrow \boxed{3} \rightarrow \boxed{4} \rightarrow \boxed{5}$$

Where:

1. represents a "generator" such as an uneven track or flat wheel

etc., that causes the shock or vibration to be initiated.

2. . . . represents the common carrier; in this case a boxcar whose weight and suspension system largely determine what phenomena the container shall experience.

 represents the tie-down or strapping efficiency with which the container is held to the larger weight of the boxcar.

represents the particular mounting system under study.

5. . . . represents the characteristics of some critical element within the item which determines the criteria table shown above.

Consider that the boxcar is undergoing steady state vibration just greater than 1 G acceleration. Efficient tie-down assures that the container will follow this boxcar motion. Poor tie-down would result in "bouncing" or "slap" of the container against the much larger weight of the boxcar, since the container leaves the floor when acceleration above 1 G is present. This bouncing would cause a series of repeated and continuous shocks instead of steady state vibration conditions. Let us stipulate adequate tie-down so that the container accurately follows the motion of the

Among the literature of research can be found the work of Stanley Fillion, Waugh Equipment Co., showing the type of shock or transient produced by rail humping. These data are in the same form as our original output curve above. That is, the data show the electrical signal from a sensing device placed upon the striking car. The electrical signal is recorded for visual study much the same as the accelerometer output signals are recorded in work at the author's laboratory. Generally these shocks from rail humping are much less severe than those of the experimental method using transient release of energy stored in a mounting system under analysis.

While the amount of data from railhump tests is quite limited, it is felt that laboratory tests using the experimental method will delineate the performance to be expected during hump tests in the field. One would take caution to assure that the peak acceleration introduced by the experimental laboratory method exceeds that of the recorded field hump tests. In this manner a reliability factor or severity (This article continued on page 186) This consultation service on packaging subjects is at your command. Simply address your questions to Technical Editor, Modern Packaging, 575 Madison Ave., New York 22, N. Y. Your name or other identification will not appear with any published answer.

Lacquer on product affects film bag

QUESTION: We are using a vinyl film bag for novelty items that are lacquered in many colors. We find that some of the colors either stick to the film or discolor the film. We would like to overcome this problem and would appreciate your suggestions for obtaining either better lacquers or better film.

ANSWER: The sticking of some of the colored pieces to the film or the discoloration of the vinyl film is due to the interaction of the plasticizers of this type of film and the resin or colors of the lacquers used on the parts. Apparently most of the lacquer colors are of such a composition that they are not affected by contact with the plasticizer of the vinyl film. However, unless you know and can specify the composition of both the film and all the lacquer colors, you can never eliminate the problem or be sure that it will not happen to every piece.

You should initially set up specifications for the type of lacquer colors and then try other types of vinyl and other plastic films. Certain types of vinyl films are made with plasticizers that are quite inactive: other plastic films use no plasticizer or types that are very different from those found in vinyl film. You can sample test film bags and different colored lacquer coatings by storing samples at 100 deg. F. and 90% relative humidity. These conditions will accelerate any interaction between the film and the colored pieces.

Heat-sealable closures

QUESTION: We manufacture paper and transparent film bags both printed and unprinted. We are considering installing equipment to improve our paper bags by the use of heat sealable closures or of making the bags entirely by heat sealing. Can we use our present machines and what type of heat sealing coatings are preferred?

ANSWER: During the last few years there has been a tremendous increase in the use of bags with heat seal closures for all kinds of products. This type of closure has many advantages both to the producer and final user. Such bag closures are siftproof, flavor and moisture tight, easy to open, use no metal parts, and can be made and sealed continuously and automatically at good speeds. However, the application of an all-over heat sealable coating or of zones of limited area and registered position cannot be done without some additions or changes in your present equipment. The extent of these additions or changes will depend upon the type of coating you wish to apply.

Two basic types of heat sealing compounds may be used, either type lending itself to either all-over coverage or application to limited and registered areas. One type is a heat sealable lacquer which can be compounded from many kinds of resins and put into solution by many kinds of solvents. The other type is a hot melt coating which has a wide range of composition, melting point, heat seal strength and other physical properties.

The final choice between these two types will depend upon many factors but each will perform to make satisfactory heat sealable bag closures. You can obtain samples of avarious coatings on papers or glassine from lacquer or hot melt makers or from suppliers of specialty coated papers. From these samples, costs and certain facts which you must develop yourself, you can decide upon the type of coating and then upon the cost of the finished bags. There are patents covering certain phases in the manufacture, application and composition of

heat sealable coatings and you will have to check this point as you procede. Most bag making machines can be changed over to accommodate heat sealing but the conversion would be complicated if you wished to be able to make both pasted bags and heat sealed ones on the same machine.

Waterproof papers

QUESTION: We are engaged in a survey of paper products. One of our clients is interested in various kinds of treated papers. Are there any truly waterproof papers as opposed to those which are merely moistureproof or water resistant?

ANSWER: There are a large number of paper structures which come under the general heading of waterproof papers; some are used by the building trades and others for packaging uses. This type of structure can be defined as having resistance to the passage of liquid water and there are many types of construction and waterproofing agents. They must be differentiated from moistureproof papers, which will have varying degrees of resistance to the passage of water in the vapor phase. The term "water resistant" is very broad and very difficult one to define clearly. It includes papers having surface treatment giving them water repellancy, which is useful for some applications, but not true waterproofness or water-vapor protection.

There is, however, one other type of paper which is sometimes confused with those you mention and that is paper having wet strength. This group may be defined as papers which maintain a high level of physical properties after complete saturation by liquid water. All of the papers described can be made into various types of containers although special adhesives may be necessary.

Laboratory sealed...

with a Du Pont CEL-O-SEAL Band

'leous

Vi-suneral

REG. U.S. PAT. OF



"Building and maintaining consumer confidence in quality pharmaceuticals is a never-ending task. From raw materials to finished products, U. S. Vitamin Corporation strives ceaselessly to maintain its high standards of quality, purity, uniformity and stability. When a consumer buys and opens our Vi-Syneral Vitamin Drops, he is sure of protected quality—a tamperproof original package, laboratory-sealed with a DuPont 'CEL-O-SEAL' band. Over 40,000,000 bottles of Vi-Syneral Vitamin Drops, which is the original (since 1943) 'oil-in-water' vitamin solution, have combined 'CEL-O-SEAL' product protection with neat package appearance."

says Mr. H. B. Burns,
President
U. S. Vitamin Corporation

DU PONT CEL-O-SEAL BANDS

REG. U.S. PAT. OFF.



BETTER THINGS FOR BETTER LIVING ... THROUGH CHEMISTRY

Impression-making Du Pont "Cel-O-Seal" bands will work for your package, too! They hold closures tight, guard against tampering and spillage, inspire consumer confidence. And "Cel-O-Seal" bands are available in a wide range of colors, can be printed with an eye-catching sales message or slogan.

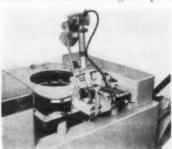
FREE PACKAGING SERVICE: See for yourself what Du Pont "Cel-O-Seal" can do for your package. Send us a labeled dummy bottle. Our packaging experts will band it, return it for your inspection. No obligation, of course. Write: E. I. du Pont de Nemours & Co. (Inc.), "Cel-O-Seal" Section, 9529-A Nemours Building, Wilmington 98, Delaware.

"Cel-O-Seal" cellulose bands are also sold by Armstrong Cork Co., Lancaster, Pa.; and on the West Coast by I. F. Schnier Co., San Francisco, Calif.

Equipment and materials

AN IMPROVED AUTOMATIC PACKAGING MACHINE

introduced by the Stokes & Smith Co., a subsidiary of the Food Machinery & Chemical Corp., Frankford, Philadelphia 24, Pa., includes design and construction changes that are reported to offer the following advantages: a stronger, more accessible restrictor unit with interchangeable parts; more accurate, visual-

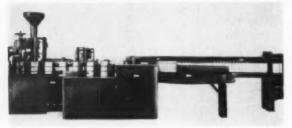


more accurate, visualsetting heater-unit thermostat; one easily replaced heater-unit element; an improved take-away conveyor with white Neoprene belt; stronger springbalanced cut-off head with positive parallel motion; stronger, onepiece trap door; plated parts wherever necessary; more complete

replacement-parts stock. This new model "Stretchrap" automatic packaging machine wraps irregular-shaped objects such as meats, vegetables, toys, cheese, etc., with heat-sealing Pliofilm as speeds up to 15 wraps per minute with one operator, according to the supplier.

A NEW HIGH-SPEED CARTON SEALER AND FILLER

that turns out 200 cartons a minute and requires one-third less floor space than other equipment of this type has been announced by the A B C Packaging Machine Corp., 102 S. Front



St., Quincy, Ill. This new unit is a continuous automatic, volumetric filler and scaler. It is reported to require very little servicing because of its simplified design and heavy-duty construction, All turning shafts are mounted in ball bearings.

VIALS WITH "BUILT-IN" TIME DIAL

offer an improvement in the functional aspect of capsule vials. Introduced by Lermer Plastics, Inc., 502 South Ave., Garwood, N. J., they have hour and half-hour indications marked around

the neck of the vial for prescribed dosage timing-a particularly valuable feature for antimedication. Called the Rx Timer, the new vials have white opaque plastic closures that have an 'easy-see" cut-out which twists easily to reveal the time indications imprinted around the neck of the vial to tell the user the time



for the next dosage. They come in three colors: golden amber, emerald green and clear. Seven stock sizes are available: 1%, 2%, 4, 7, 10, 12 and 14 drams.

NEW STRIPPABLE LITHOGRAPHY FOR TUBES

designed especially to meet the needs for removable labels of pharmaceutical tube users has been developed by A. H. Wirz,



"Ready-Peel" lithography are made to replace the unlabeled tubes formerly supplied to manufacturers of pharmaceutical products. This patent-applied-for process eliminates the expense of labeling tubes with separately printed labels prior to shipment to customers. In addition to providing an attractive tube that can be effectively merchandised, the Ready-Peel lithography can be easily and quickly removed from the tube and replaced with the druggist's or physician's individual prescription directions. Once removed from the tube, Ready-Peel lithography cannot be re-used-an effective precaution against re-application. Use of the new tube decoration, said to peel as easily as a banana, also eliminates

the difficulty of correct identification of tube contents. Product code numbers can be stamped on the crimp of the tube both to provide identification and to comply with Federal requirements.

A NEW AUTOMATIC FOOD FILLER

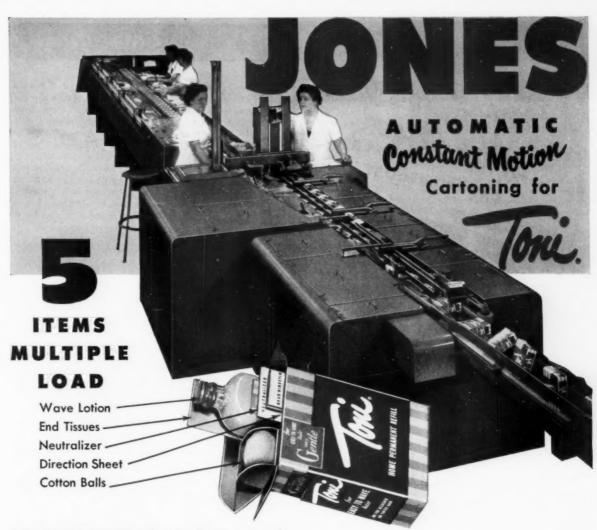
with a micrometer adjustment that can increase or decrease quantity of fill while the machine is in operation has been announced by the F. L. Burt Co., 571 Seventh St., San Francisco, Calif. The filler can be stopped instantly even in the middle of

discharge stroke without turning off the motor switch, according to the company. Liquids or semi-solids can be filled at 10 to 30 containers per minute and the machine is adjustable from 1 gal. to 8 oz. Contact parts can be of stainless steel or acid-resistant alloy, The unit, which is reported as inexpensive, is easily dismantled for cleaning. equipment is an 8-ft.



A HEAT SEALER WITH "TEAR HERE" SLITTER

for easy bag opening is being offered by Pack-rite Machines, 407 E. Michigan St., Milwaukee, Wis. The machine also ink prints code date and hole punches bag tops. This high-speed, rotary continuous heat sealer has a discharge feed wing beyond the sealing rolls in which is located a positively driven rotary member that has a steel knife which makes a perforated slit at the upper edge of the seal, thus permitting a tear to be started and the bag readily opened. The slit extends only a short distance



TONI HOME PERMANENT, favorite of millions, is packaged on this fully automatic Jones Constant Motion cartoner.

THE COMPLICATED MULTI-PIECE LOAD INCLUDES:

Direction sheet, fed from magazine and placed on edge in center of bucket.

End tissues, automatically fed into one compartment of bucket.

Neutralizer, foil-wrapped, manually placed on end tissues. Bottle of wave lotion, automatically placed on top of neutralizer.

Chipboard sleeve with cotton balls (or turban), automatically placed in other compartment of divided bucket.

Bottle of White Rain Shampoo or Creme Rinse may be substituted for chipboard sleeve. Flat corrugated platform is fed from magazine, formed, and placed below bottle.

Machine feeds and opens cartons, inserts load, tucks both ends of carton, and discharges complete package turned on end.

SPEED: 160 PER MINUTE

Toni's high production at low cost typifies the guaranteed performance of Jones cartoners.

R. A. COMPANY, INC.

P. O. BOX 2055
CINCINNATI, OHIO



Equipment and materials

into the sealed area and does not affect the strength of the seal, the supplier reports. The slit is almost imperceptible and does not mar the appearance of the bag or its seal. To direct attention to the slit, the words "Tear Here" are ink printed at either side of the slit, the imprinting being done automatically and in conjunction with the slitting operation. The machine will slit and imprint as fast as the bags can be fed into the feed wing. Each slit and printing impression appears at the identical position on every bag and only once, regardless of bag width, according to the supplier. Adjustments for varying bag widths is instantly made by shifting the bracket to which switches are attached. If hole punching is desired, a punch is used instead of the slitting knife.

A NEW AUTOMATIC NECK-BAND SEALER

that automatically applies pre-cut cellulose bands on half-pints, pints, fifths and quarts, either flat or round ware, is being offered by the Gisholt Machine Co., 1245 E. Washington Ave., Madison 10, Wis., to the liquor, wine and beer industries and to chemical, pharmaceutical and liquid-food bottlers. It functions with non-orienting or orienting-type bottles. Production rate is reported as instantly variable from 50 to 165 bottles per minute. The machine is readily adjustable for applying all sizes of pre-



cut cellulose bands, it is said, and change-over time ranges from as little as 5 min. for changing bottle shapes to 30 min. for extreme size changes. The machine was developed after 10 years of research and development and the company reports that one, operating at a rate of 140 bottles per minute, has sealed more than 16 million bottles since its installation with no production lost from breakdown or maintenance troubles. The supplier claims that use of the machine will lower unit packaging costs, provide a more uniform appearance for the finished product and open up new fields for inexpensive pre-cut cellulose-band application.

A NEW WEIGHING AND SORTING UNIT

that can be installed and serviced by any factory maintenance department (see "Dry-Packed Foods," this issue, p. 86) has been announced by the Hi-Speed Checkweigher Co., Inc., 407 Cliff St., Ithaca, N. Y. Designed to operate accurately under severe dust conditions, the unit will weigh and sort up to 80 products per minute, depending on size and weight of items handled. Weight range may be adjusted from ½ to 2 oz. The checkweigher has a rejection point of accuracy of plus or minus ½6 oz. at maximum speed. Its maximum capacity is 10 lbs. The

Which of these PACKAGING IDEAS

will cut your costs?



Snake Tape is reinforced for extra strength. Free sample!



Protective papers for industrial, building and farm needs since 1895. Distributors in principal cities.



Vapor-from-paper stops rust. It saves greasing; saves degreasing. Here, machine parts are protected with Angier VPI[®] in 60% less time than when they were slushed!

Check coupon for FREE sample and facts.



To meet Jan-B-121, you can't beat the original Grade A, INDUWRAP*. Its acetate barrier keeps synthetic or petroleum-based compounds in place. Check coupon for FREE sample and facts.



Center-seam sealing* with SNAKE TAPE saves time.

Only two sealing motions! And cartons stay closed because Snake Tape is reinforced to give strap-like strength.

For two years now, St. John Mfg. Co. has been sealing cartons of apparel this fast, sure way. Center-seam sealing can save you time and labor, too!

Reinforced, waterproof Snake Tape comes in five widths. All with strap-like strength.

*ACCEPTED for parcel post, railway and air express and truck shipments. Also accepted for carload and LCL rail shipments where rule 5, section 1 (c) of Uniform Classification applies.

- ANGIER CORPORATION
- Framingham 11, Massachusetts
- Send free sample and facts on:
- I Angier VPI Wrap
- Angier Induwrap
- ☐ Angier reinforced Snake Tape
- Name, Title (Sign, clip to letterhead)



The odds are that your packaging can be printed better, faster and with less down time by using new developments in rubber or plastic printing plates.

We will be happy to send you the name of a reliable platemaker in your area who will show you the advantages of the latest developments as they apply to your specific requirements. There is no obligation whatsoever.



Foremost Supplier of Machinery, Materials and Methods for Rubber and Plastic Platemaking Essentials.

Equipment and materials

unit occupies only 22 by 28 in. of floor space and may be installed at any convenient location along a conveyor belt. It requires only 4 in. of conveyor belt and is adjustable to conveyor height.

65 NEW POLYETHYLENE AND STYRENE CONTAINERS

have been added to the line of plastic containers made by the Plastic Container Corp., West Warren, Mass., for automatic packaging of food products. Of these, eight are now obtainable;



the remaining 57 will be on the market soon. They are offered with firm name imprinted on the lids and are attractively colored and designed to add to their value as consumer premiums. Included in the new line are three new "Vacu-Seal" clear styrene Rogers containers with opaque white polyethylene lids. Previously offered only in a 12-oz. size, they are now obtainable in 8-oz. (see illustration), 16-oz. and

24-oz. sizes, with key numbers 1350, 1352 and 1353, respectively.

A TEAR-STRIP APPLICATOR FOR CARTONS

announced by H. G. Weber & Co., Inc., 725 Fremont St., Kiel, Wis., is designed for high-speed handling a wide range of box blanks—from an 11-in. minimum to a 48-in, maximum width

and from a 26-in. minimum to any desired maximum length. Applying speeds up to 1,000 ft. per min. are available. This hand-feed tear-strip applicator is a self-contained packaged unit, 3 ft. 6 in. by 5 ft. 6 in. mounted on casters. Features include accurate cut-off control and no limit switches or other electrical controls. The unit can be adapted to full automatic operation, with automatic feed and take-off.

Also announced by Weber are a new remote-control edge alignment unit and a new machines for fabricating mesh-window potato bags, both of which were exhibited at the recent Packaging Show.



HEAVY-DUTY CUTTERS AND CREASERS

for corrugated and solid fibre, distributed by the Post Machinery Co., 152 Elliott St., Beverly, Mass., include two models of the Thrissell machine. The small press has a 30-by-22-in. maximum and a 15-by-11-in. minimum capacity. The large press has a 40-by-30-in. maximum and a 20-by-15-in. minimum capacity. Speed of both machines is reported up to 3,000 impressions per hour. Thrissell machines do not operate on a stamping or pressing principle, but are designed around a rolling quadrant. This quadrant is positioned by a reciprocating crank movement that rolls it back and forth beneath the cross-head. Sheets moving from the bottom of the feed pile reach the correct pre-registered position automatically. The rolling quad-

TEAR RESISTANT TOPS

mean new sales appeal for cellophane bags



Which Style Bag Do You Use?

The Renka sets up

- 1. flat bags with folded tops
- 2. bags with rounded flaps
- 3. bags with flaps and foldover
- 4. paper-backed bags with reinferced tops
- 5. tehacce peuches
- 6. gusset bags with two side seams and no bottom seams
- 7. paper bags with transparent film windows
- 8. bags without folds or flaps

Now you can give your customers cellophane and film bags that outperform any they have used before. The improved bags made automatically on the Renka Bag Machine feature a fine cord reinforcement that gives them extra-strength, extra tear-resistance.

SALES ADVANTAGES OF RENKA BAGS

Higher packaging speeds Renka Bags can be filled far faster than bags of conventional fragile construction . . . with almost no danger of tearing. This holds particularly true when hosiery, sweaters and other limp, soft goods are being packaged. Extreme care to prevent tearing is not needed.

Better retail appearance Renka Bags prove outstanding from the retailer's point of view. Because the

bags are so strong, merchandise can be taken out and replaced time after time, without giving the bag a torn, shopworn, sale-killing appearance.

The Renka makes bags from cellophane, film and paper, at speeds from 10,000 to 40,000 per hour, depending on size. The size range of the bags produced is from 2" to 22%" in length, and from 3" to 13" in width. Maximum length is smaller than maximum width because the bags are made from the width, not the length of the roll.

Changes from one bag size to another are accomplished rapidly. The machine is extremely compact and well built. An interesting folder and sample bags will be sent to you on request. Write for them today.

RENKA BAG MACHINE



G. van der Meulen & Zn. N. V.

Prins Hendrikkade 173 Amsterdam, Holland



Checking up on the check-outs

It does our hearts good to stand here on a busy Saturday, noting the immense amount of foods, allied items, and beverages that go home in Gardner cartons and carriers.

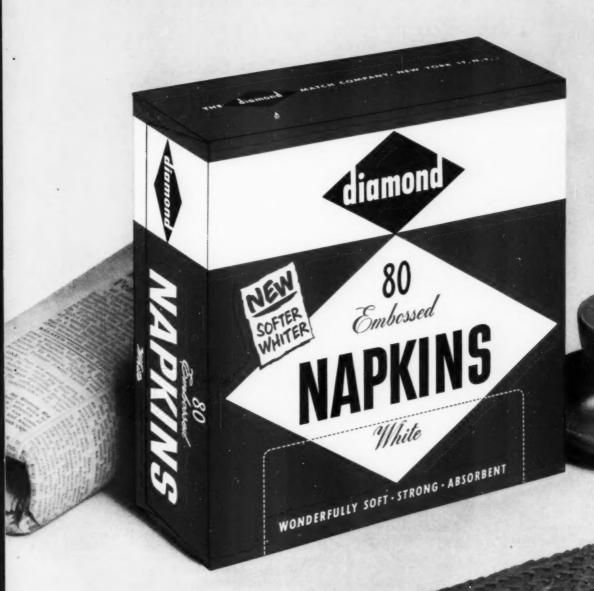
We can get the same satisfaction in any other kind of store — drug, hardware, and department store, to name just three. The hosts of respected names that appear on these Gardner cartons are eloquent proof of the fitness of "Cartons by Gardner" to package *your* proudest product. A first step in this direction is your inquiry which will be promptly handled by a Gardner representative thoroughly schooled in every phase of carton design and manufacture.

GENERAL OFFICES: Middletown, Obio—PLANTS: Middletown, Obio; Lockland (Cincinnati), Obio SALES OFFICES in Chicago, Cleveland, New York, Philadelphia, Pittsburgh, St. Louis

THE GARDNER BOARD AND CARTON CO.



Manufacturers of Folding Cartons and Boxboards



FROM THE GARDNER GALLERY OF FAMOUS AMERICAN PACKAGES

here's the bag that broke a bottleneck

PACKAGE IT IN SECONDS . . . grease and oil coatings eliminated.

OPEN IT AND IT'S READY for immediate



NEW CROMWELL FERRO-PAK

-for rustproof packaging of all ferrous metal products

A manufacturer found it took almost as long to package clutch plates as to make them! Time was lost grease-dipping every part, wrapping, and packaging in heavy wooden boxes. Result: shipments weren't keeping up with production. He asked Cromwell for help, and our paper engineers had the answer in a hurry . . . a strong but lightweight Ferro-Pak paper bag.

Ferro-Pak broke the bottleneck. Now, as fast as they come off the production line, parts are bagged, sealed, slipped into lightweight containers and shipped for a fraction of former costs! Find out today how low-cost Ferro-Pak can help cut costs and increase efficiency in your plant.

Produced in compliance with Military Packaging Specification MIL-P-3420. At leading paper houses in rolls, sheets, bags, pouches, shrouds.



| Cromwell Paper Company 4805 South Whipple Street • Chicago 32, Illinois | |
|--|------------|
| Send free samples and complete information on | Ferro-Pak. |
| Name | |
| Firm | |
| Type of Products | |
| Address | |
| City and State | |

Equipment and materials

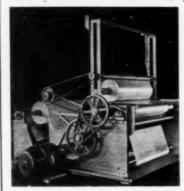
rant moves over the sheet, exerting sufficient pressure for the cutting and creasing operation. As the finished sheet leaves the die and is delivered, a new sheet is drawn into position, all automatically. Makeready and die changes are easy and fast, it is reported, and dies of the most complex nature can be utilized.

COLORFUL DECORATING OF STEEL PAILS

is a new service now being offered by the Vulcan Steel Container Co., 3315 N. 35 Ave., Birmingham, Ala. New, modern facilities for lithographing customers' labels and trademark designs have been installed at the company's plant. All sizes of pails and drums made by the company-in sizes from 1 gal. through 8 gal., open head and closed head—can be decorated with customers' present designs or new designs developed by Vulcan's art staff. The company is featuring lithographed pails and drums with Hi-baked interior linings and a new non-mar exterior finish.

A NEW SIMPLIFIED SLITTER

designed for the laminator whose product is to be printed in later operations on multicolor web-fed presses has been introduced by the Inta-Roto Machine Co., Byrd Airport, Richmond,



Va. This inexpensive new slitter is belt driven. There are no gears and, therefore, it operates without chatter which may disturb register in subsequent printing operations. It is a surface-type rewinder. Rolls which have been divided will fall apart easily, the company reports. Automatic web guide for webs up to 72 in. wide is available.

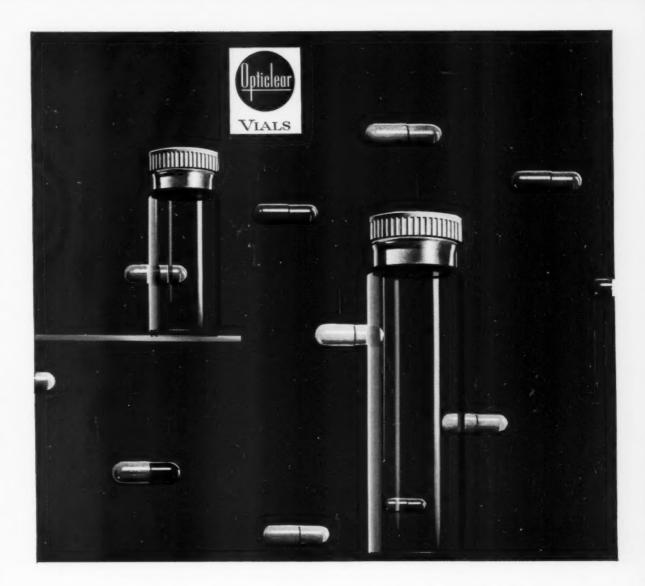
A SPECIAL CELLULOSE ACETATE FORMULATION

developed specifically for vacuum forming has been announced by the Plastics Division of the Celanese Corp. of America, 180 Madison Ave., New York 16. The new material, known as S704, is available in clear and colored stock and is expected to find broad use in packaging and display applications. Field trials of S704 indicate a shorter cycle, lack of blush and webbing, and general adaptability to forming, according to the supplier. Small cavities as well as large forming pieces can be made.

To meet the growing demands of produce pre-packaging, Celanese Corp. is now offering polyethylene films as well as acetate. Celanese polyethylene will be used in packages for heavy commodities, while acetate will continue to be used for fruits and vegetables that require a permeable film to control moisture and gases.

A NEW POLYSTYRENE FORMULATION

developed by The Dow Chemical Co., Midland, Mich., and known as Styron 688 is reported to flow faster and more evenly throughout the mold and, therefore, may be used to advantage in such applications as thin-walled containers, vials and tubes as well as large boxes and containers. Extensive field tests of the material by Dow are said to result in better parts, faster cycles and fewer rejects. Styron 688 comes in crystal, transparent and



SO CLEAR, THE CAPSULES SEEM TO FLOAT IN SPACE



Kimble Opticlear Vials are made of such extremely clear glass that their contents virtually

seem to float in space. That is part of the classic beauty of these vials especially designed for fine prescriptions and fine pharmaceutical products.

Adding to their efficiency in repel-

ling moisture that sneaks through the sidewalls and bottoms of some types of containers, is a moistureproof closure especially engineered for Kimble Opticlears, that is moisture-proof beyond anything else in the market.

Opticlears' easy-in and easy-out closures, clear and sparkling glass have helped make outstanding sales successes for a broad and varied assortment of pharmaceutical and proprietary tablets and capsules, fancy food items, spices and advertising novelties.

Kimble Opticlear Vials are only one of many Owens-Illinois contributions of engineered glass products to the nation.

KIMBLE OPTICLEAR VIALS
AN (1) PRODUCT

OWENS-ILLINOIS

GENERAL OFFICES · TOLEDO 1, OHIO

The MULTI-U-METER Handles Plastic, Odd-shaped Containers

Container guides hold any type, shape or aize containers rigidly in filling position. Handles any liquid. Has automatic product supply and automatic filling control. Advanced features. Minimum floor space. Two-Head and Four-Head models. Write for Multi-U-Meter Bulletin.



Look to For Every Liquid Filling Requirement

You can get better production from fillers that simplify operations. For decades, U. S. engineering has consistently improved automatic machine operations to reduce manual dexterity. Result: greater and easier production. As a policy, every moving part is built for dependability-plus. That is why U. S. machines have that "never-let-you-down" reputation which you can depend upon. Whatever your liquid filling requirements, investigate U. S. machines.



Model B-49 Straightline Vacuum Filler

handles any liquids. Quick changeover for all container sizes (AGST to gallons). For operation with or without discharge conveyor. Simple hand lever operation for multiple filling of up to 9 containers at a time, otherwise completely automatic. Filling is uniform clean and fast. Write for Bulletin B-49.



.....

Model 8-2 Vaccum Filler handles any liquids; all containers ranging from AGST finishes to containers 4½" dia. Four container holding cups enable continuous filling of two containers at a time. Product supply is automatic. Portable. Ideal standby for peak loads. Write for Bulletin B-2.

Siphen Filler efficiently handles free-flowing liquids. For all container sizes including gallons. Stainless steel, no drip siphon tubes. Write for Siphon Bulletin.

U. S. BOTTLERS MACHINERY COMPANY

4017 North Rockwell Street . Chicago 18, Illinois

BOSTON * NEW YORK * PHILADELPHIA * HOUSTON * DALLAS * LOS ANGELES * SAN FRANCISCO * DENVER * SEATTLE * PORTLAND * PHORNIX * NEW OBLEANS * TAMPA ATLANTA * MONTREAL * TORONTO * VANCOURS * WINNIEG * EXPORT OFF. TOLEDO

Equipment and materials

opaque colors and follows the same price schedule as Dow's general-purpose polystyrene. A technical data bulletin is available on request to: The Dow Chemical Co., Plastics Technical Service, Midland, Mich.

TWO PACKAGING ADHESIVES

developed by Polymer Industries, Inc., Springdale, Conn., are solvent-based Polybond G-1028 and water-based Polybond K-393 for use in bonding cellulose triacetate film. Both are reported to be machinable on standard adhesive equipment. Technical information on these adhesives is available on request to Polymer Industries.

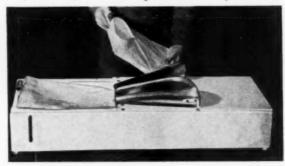
NEW FLUORESCENT COLORS

for silk screening and poster painting have far greater brilliance and longer color life than heretofore, according to the Radiant Color Co., 830 Isabella St., Oakland 7, Calif., maker of Velva-Glo fluorescent papers and colors. These new colors, called Velva-Glo Oil Paints, come in chartreuse, orange-yellow, orange, green, red, cerise and orange-red. Two medium coats, brushed or sprayed, are said to remain effective outdoors for three to six months.

Silk screened one stroke through No. 8 silk, the colors retain their brilliance for 30 to 60 days outdoors, the company reports. Recommended for point-of-purchase material, the colors come in quarter-pint, half-pint, pint, quart, and gallon cans and are available from most silk-screen supply dealers.

A LEADING DEVICE FOR QUICK PACKING

of soft goods is designed to cut packing costs of operators of laundries, dry cleaners and soft-goods manufacturers. This new "Comet" machine, made by the Comet Envelope & Paper Co., Inc., 5 E. 17 St., New York, is reported to attain a speed of 1,000



units per hour with a single operator. Average speed is placed at 600 units hourly per operator. The machine, which occupies a space of about 3 by 5 ft., is set on a table and plugged in a wall socket. Power needed is 110 A.C. The unit uses little current and maintenance is said to be negligible. The only moving part is walled off from the operator, making the machine completely safe. The "Comet" can be easily adjusted to accommodate a wide range of sizes from 7 to 12 in. in width and from 10 to 18 in. in length.

AN INDUSTRIAL ADHESIVE

that is reported to combine the desirable properties of polyvinyl acetate glue with those of liquid hide glue has been announced by The Franklin Glue Co., Columbus 15, Ohio, Known as Titebond Glue, this liquid, ready-to-use solution is said to form continuous films down to 40 deg. F., does not melt or block below 375 deg. F. and dries rapidly. Titebond reportedly has an unlimited working life. A technical bulletin and samples of the product are available on request to the supplier.



The J&L line includes all types of Closures and Finishes. Bright, colorful decorations may be reproduced to your specifications. Heavy-duty ICC Drums. Light-gauge Drums. 55, 30 and 15 gal. capacity and 100-lb. Grease Drums. Lightweight Drums fo: Chemical and Powdered Materials. 1-10 gal. capacity Steel Pails for Foods, Chemicals, Oils.





FOR TOUGHNESS

J&L STEEL CONTAINERS

CAN TAKE IT

J&L Steel Drums and Pails meet the most rigid tests for durability because:

- J&L Drums and Pails are made from high quality J&L Steel Sheet.
- J&L Drums and Pails are made with care and accuracy in every detail.

You can obtain J&L Steel Drums and Pails through plants located in leading industrial centers. You'll find J&L service fast and efficient. Call the J&L office serving your community.

Jones 4 Laughlin

STEEL CORPORATION - Pittsburgh

CONTAINER DIVISION

405 Lexington Ave., New York 17, New York



Plants and people

American Can Co., New York, has created a new fibre milk container department with William F. May as its general manager. The following assistant general managers have been appointed: Edward Evans, sales promotion; R. J. Odiorne,

manufacture; and G. S. Spence, sales. V. K. Shuttleworth is also a part of the new organization.

The company has also increased production facilities at key locations, and a new plant under construction at Needham, Mass., is scheduled for completion later this year. New milk



container production lines will be installed at existing plants in Maywood, Ill., Stockton and Los Angeles, Calif.,

and Brooklyn, N. Y.

American Can has begun construction on a new plant to be located at 46th Ave. and Dahlia St., Denver, Colo., to serve the brewers, fruit and vegetable canners in the Rocky Mountain area. Walter H. Etzbach, manager of the Rocky Mountain district sales office, will move his office to the new building upon its comple-

Plastic Container Corp., West Warren, Mass., manufacturer of polyethylene and styrene containers, has appointed Charles S. Conklin as sales manager and E. Don Pam as New York district sales manager.

The Development Div., Aluminum Co. of America, Pittsburgh, Pa., has appointed John S. Hamilton manager of packaging foil sales to coordinate activities in the packaging field. He will be under W. S. McChesney, product manager for foil.



Ball Bros. Co., Muncie, Ind., has appointed Barney B. Freitag as product manager for glass containers supplied to the food packaging industry. Mr. Freitag has been associated with the food industry for 25 years, the last three with Walt Disney Productions.

The Dow Chemical Co., Midland, Mich., has moved its New York sales office to 45 Rockefeller Plaza, New York 20,

Acme Steel Products Div., Acme Steel Co., Chicago, has appointed Herbert F. Middleton as western area manager, with headquarters in Los Angeles, to replace Squire J. Johnson who rejoins the parent company as head of production and sales of flexible steel conduit. William H. Smythe, Jr., Charles G. Moreau, Albert G. Karstens and Theron P. Schulz were also advanced by the company.

The Glass & Closure Div., Armstrong Cork Co., Lancaster, Pa., has transferred Russell E. Thompson, Jr., to the Milwaukee sub-office of the Chicago District office; Edgar A. Roll to the Charlotte suboffice of the company's Atlanta District office and Richard F. Broughton to the San Francisco office. Three additions to the sales staff of the home office include John C. Pender, glass containers; Joseph H. Copeland, corks department; and Eugene A. Valleroy, cap department. Mr. Valleroy replaces James F. Dussinger who will be assigned to the field sales force.

William W. Fisher has been appointed vice president in charge of operations for American Type Founders, Inc., Elizabeth, N. J. Mr. Fisher will be responsible for the company's research program, the engineering and manufacturing activities at the Elizabeth and Mt. Vernon, New York, Divs. and will assist L. C. Edgar, Jr., ex-







Fisher

Tobias

Marquardt

ecutive vice president. Robert A. Tobias has been made vice president in charge of sales. Clifton Carr has been named advertising and sales promotion manager. R. G. Marquardt has resigned as vice president and general sales manager.

Bakelite Co., Div. of Union Carbide & Carbon Corp., New York, has appointed J. M. Herbert to the newly formed post of Midwestern zone manager for the Molding Materials Div. with headquarters in Detroit. R. H. Bruce has been appointed Eastern zone manager for the Molding Materials Div. and will establish headquarters in Hartford, Conn.

Bradley Container Corp., Maynard, Mass., manufacturer of collapsible plastic tubes and squeeze-to-use containers, has appointed W. Ward Willet as merchandising manager.

Adolph G. Mueller, formerly with the Chicago plant of Bensing Bros. & Deeney, Philadelphia, has been made a field service representative of the company in

Florida, Georgia, North Carolina and South Carolina. Harold Heyer has been appointed to the field staff to service accounts in the middle west.

Bensing has moved its New England plant from Wakefield to 95 Binney St., Cambridge, Mass.

A. H. Wirz, Inc., collapsible tube manufacturer, Chester, Pa., has installed Mark

K. Dresden as president, succeeding H. S. Darlington, who retired earlier this year. Also promoted by the company are Townsend C. Cox, vice president in charge of engineering and labor relations; Robert Cox, vice president in charge of production and purchasing; Mr. Dresden and H. Walter Rowan,



former office manager and chief accountant, who has been made treasurer.

Fulton Bag & Cotton Mills, Atlanta, Ga., has appointed Gorge W. Williams as manager of Fulton's new combined textile and multiwall operations at Los Angeles, succeeding Jack C. Baldwin, who is retiring. Fred G. Barnet has been named to succeed Mr. Williams as manager of Fulton's Dallas, Tex., branch.

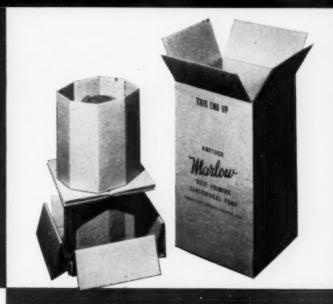
W. Frank Kerr has been named sales manager for Los Angeles. Succeeding Mr. Kerr as sales supervisor at New Orleans, La., is Louis J. Even.

Dumont Enterprises, Inc., Englewood, N. J., has obtained additional quarters in Englewood to be devoted to the custom packaging of foodstuffs. Laboratory facilities will be expanded and will have Joseph Simmons in charge of the Quality Control Dept. Ralph Schlienz is plant manager.



Crown & Cork Div., Continental Can Co., New York, has appointed Vernon C. Guse manager of the customer research service, a function transferred from the company's Chicago Research Div. Mr. Guse, who joined Continental in 1936, will locate in Wilmington.

H. K. Taylor and C. W. Morgan have retired from George D. Ellia & Sons, Inc., Philadelphia. Both Mr. Taylor and Mr. Morgan, founders of the firm which was incorporated in 1919, will remain as directors. J. Earl Cobourn has been appointed treasurer and will continue to serve as personnel manager. L. Crampton PROTECTION





IDENTIFICATION

PROMOTION

White for bookly, "How to Merchandise With Carried ad Baiyes." 1 Kinde A Dauch, Sandunky





HINDE & DAUCH

Startlements are Florenders



Plants and people

Sossaman has been appointed vice president and general sales manager.

Albert E. Bachmann and H. T. Holbrook have been elected vice presidents of Standard Packaging Corp., New York. Mr. Bachmann, associated with the firm since 1936, has served as president of the Technical Assn. of Pulp & Paper Industries and is a member of the Canadian



Mr. Bachmann (left) and Mr. Holbrook

Technical Section of the Canadian Pulp & Paper Industries, as well as vice president of the Superintendents for the paper industry. Mr. Hol-

brook, with Standard Packaging since 1947, has served as assistant chief, packaging branch, U. S. Army Ordnance, and has written a number of technical articles and papers on various phases of the packaging industry. He is vice president and a director of the Packaging Institute and a past president of the Forest Products Packaging Council.

Chippewa Paper Products Co., Inc., Chicago, has installed a new machine specially designed to apply wax and other formulations automatically and in exact amounts to corrugated products.

Alexander J. McCarthy has been elected secretary of National Adhesives Ltd., England, a subsidiary of National Starch Products, Inc., New York.

Robert Gair Co., Inc., New York, manufacturer of folding cartons, paperboard and corrugated containers, has appointed Heinz Ahlmeyer as assistant division manager at its Gair Cartons Div. located at Piermont, N. Y.

At its newly acquired Los Angeles plants, Gair has appointed Otto M. Miller general manager of the Angelus Paperbox Co. Div.

Gair has announced the opening of a general sales office at 705 Forsyth Bldg., Atlanta, Ga. Dan Kaufman will cover folding carton sales, Marshall Foster patented Egg-Safety cartons and William C. Goebell corrugated and solid fibre shipping containers.

The Gardner Board & Carton Co., Middletown, Ohio, has established an instrument section in its engineering department. Henry Alford, former superintend-

WANT? Gerings I-IMPACT Modified Styrene

Gerings

ILM, TUBING and SHEET

- RIGID (Flexes at Low Temperature)
- LOW Heat Shrinkage (Min. stress-strain)
- High Impact STRENGTH
- Dimensionally STABLE Low Water ABSORPTION
- **Excellent FORMING Properties** (Vacuum Pressure)
- Wide COLOR Range (Translucent & Opaque)

- Good LIGHT Stability
 Tasteless, Non-Toxic, Odorless
 Gauges: .005 to .125 (Rolls, Sheets)
 Widths: Up to 54"
- Tubing: Up to 41/2" O.D.

Resistant to alkalies, salts, dilute mineral acids, lower alcohols, water. End Uses: Advertising displays, mannikins, trays, covers, cases, interior signs, packaging guards, novelties, toys.

Superior quality film, produced under rigid manufacturing controls; with these Outstanding Qualities:

- FLEXIBLE at Low Temperatures LOW MOISTURE Vapor Transmission Heat SEALABLE
- Non-Toxic, Tasteless, Odorless
- STABLE to Varying Temperatures and Humidity Changes RESISTANT to Alcohols, Most Acids,
- Alkalies

Manufactured in widths to 60", in .0005 to .008 standard thickness, as well as any SPECIAL thickness, shapes, contours, designs and colors. End Uses: Carton and Barrel liners; Frozen and Fresh Food packs; Dehydrated Products; insulation; display packaging, etc.

GERING Products ING.

EXTRUDED PRODUCTS DIVISION KENILWORTH, N. J.

SATISFACTION GUARANTEED and YOUR MONEY BACK

Faster, neater bagging . . . at lower cost . . . pays you many times the price of this easy-to-use bagger. Blower opens bag; your operator fills and removes it in one swift motion. Adjustable for bags from 24 to 5 inches wide and 54 to 71/2 inches high. Glad to quote for other sizes or cellophane.

TRIAL OFFER

Use this bagger a full week. Be 100% satisfied or return it for refund.

Just send samples of your bags and ask for Bulletin 4-29





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ANDERSON BROS. MFG. CO. ROCKFORD. ILLINOIS



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we have ALL the answers ... special papers, special adhesives, special formats. Heat-seal, Red-E-SHk pressure sensitive, spot-gummed, strip. gummed, carbonized. Cut single, Padded, in rolls. Background of a million orders ... over 50,000 cus. lomers. Sure, we can put LABEL. POWER to work for you, tool

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induce polyethylene printability

the world-famous KREIDL PROCESS

- easy to use
- complete "know-how" supplied
- extremely inexpensive

The patent-protected Kreidl Process easily and inexpensively overcomes all difficulties previously connected with the printing and decorating of polyethylene. Licenses to use the process-similar to licenses already granted all over the world to more than forty extruders, fabricators and decorators-are now obtainable.

Surface heat treatment by the Kreidl Process makes film, bottles, coated papers, extrusions, molded pieces and other polyethylene items one hundred percent printable! Once it is treated, polyethylene can be printed at any time, by any printing process. The resulting printing withstands the scotch-tape test. Moreover, the Kreidl Process makes it perfectly possible to imprint polyethylene with commercial marking inks, and to apply regular paper labels and decals.

The cost for treatment per yard or per piece is most negligible. Equipment for the process, suitable for small or large wsers, occupies minimum space.

Each Kreidl Process licensee initially receives full "know-how" and instructions. As new "know-how" develops in field installations, it is promptly disseminated, enabling licensees to lower costs and improve

Full particulars on how your company can obtain the advantages of being a Kreidl Process licensee will be sent on request.

THE KREIDL CHEMICO PHYSICAL CO.

New York: 57 West 58th Street Columbus, O.: 81 East State Street Austria, Vienna 2: Engerthstr. 169

Plants and people

ent of The Manchester Machine Co. of Middletown, a wholly owned Gardner subsidiary, has been appointed instrument engineer to head the new section. James D. Tewel replaces Mr. Alford at Manchester. Harry Largent has been made design engineer at Gardner.

Gaylord Container Corp., St. Louis, Mo., has appointed Oliver H. Stieber as general traffic manager succeeding Ernest D. Grinnel, deceased. Succeeding Mr. Stieber as assistant general traffic manager is Alvin H. Franke.

David G. Bernard has been appointed sales manager of the Cambridge Container Div., Dewey & Almy Chemical Co., Cambridge, Mass., succeeding W. M. Rand, Jr., who has joined the staff of George W. Blackwood, vice presidentgeneral sales manager.

The Adhesives & Coatings Div. of Dewey & Almy has announced that it will discontinue its line of dextrin and starch base labeling and case sealing adhesives and concentrate on its fast-bonding synthetic resin adhesives.

Marc Theodore Kent, Jr., has been appointed advertising coordinator for the Display Div. of Gibralter Corrugated Paper Co., Inc., North Bergen, N. J. Lamonte E. Hartman has been named new art director.

Greenwood Packaging Supply Co., Newark, N. J., has opened a new division at 1420 Walnut St., Philadelphia, to be known as Greenwood Packaging of Philadelphia, Inc. The division will be headed by Bert Jacobson, in charge of Military Packaging, and Nina I. Harvey, in charge of molded foam rubber applications for military packaging.



Hudson Sharp Machine Co., Green Bay, Wis., has promoted Fred Schwartz to chief engineer. Mr. Schwartz, who joined Hudson Sharp about a year ago, is widely known and respected as an authority throughout the paper con-Mr. Schwartz verting machinery field.

Minnesota Mining & Mfg. Co., St. Paul, Minn., has promoted Arthur H. Spackman to retail sales supervisor for cellophane tape. He will locate in Cleveland.

Kennedy Car Liner & Bag Co., Shelbyville, Ind., specialty bag manufacturer, has purchased new machines capable of high-speed production of polyethylene bags. Additional sales personnel are being trained by the company for special service to polyethylene users.

Willard S. Schweinfurth has been appointed Buffalo district sales manager for the Hinde & Dauch Paper Co., Sandusky, Ohio, to succeed Alexander M. D. Martin, deceased.

Imco Container Corp., Kansas City, Mo., has appointed Leroy E. Durkin to the company's New York sales force. Mr. Durkin was formerly with T. C. Wheaton Glass Co.

Richard Canzano has joined Norbert Jay, New York, package designer and con-sultant. Mr. Canzano was formerly with lim Nash.

Francis H. Ludington, president of Chase Bag Co., Chicago, has announced the fol-



Mr. Ludington, Ir. (left) and Mr. Brock

lowing top executive promotions: F. H. Ludington, Jr., formerly assistant vice president, was appointed vice president; W. N. Brock, general sales man-

ager, was elected vice president; A. H. Nuhn, assistant treasurer, was appointed vice president; and M. J. Bender, assistant secretary, was elected secretary.

Harris-Seybold Co., Cleveland, Ohio, which recently purchased the assets of C. B. Cottrell & Sons, has announced the re-election of Donald C. Cottrell as president of the firm, which will be operated as a wholly owned subsidiary of Harris-Seybold. George S. Dively, president of Harris-Seybold, has been elected chairman of the Cottrell Co.'s new board of directors. Other newly elected directors are: Donald C. Cottrell, Ren R. Perry, M. H. Glover, W. R. Spiller and Joseph W. Powell, Jr. Officers of the Cottrell firm are now as follows: George S. Dively, chairman of the board; D. C. Cottrell, president; Charles P. Cottrell, Jr., vice chairman of the board; Albert J. Graf, vice president-Westerly plant manager; Carl C. Sweet, vice president-Milwaukee plant manager; Stanton C. Saunders, vice president-director of sales; Albert Halstead, vice president-sales manager; Joseph E. Meyer, vice president-engineering; Joseph W. Powell, Jr., vice president; Ar-

Spectrum-wide choice of colors to spur sales at point-of-sale.



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use

Ease of squeeze dispensing to increase consumption at point-of-use.



repeat

Use convenience and shelf-impact combine to foster brand loyalty.



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The Plaxpak bottle "fights" for your product at the point-of-sale, re-sells it at the point-of-use and so brings customers back for more. Plax has unequalled experience in plastic bottle packaging-let us help you produce another merchandising success.



PLAX CORPORATION

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Picture YOUR Packages
with Your OWN Colorful
"SEAL OF DISTINCTION"

Color Printed Kraft Gummed Sealing Tape

- 4 Points to remember about On-To-Sta 4 Color Sealing Tape
- Every carton and package leaving your plant carries your 4-colorful advertising message everywhere.
- Your packages are padlocked with your company's name —they're pilferage proof. Dust and dampness are locked out.
- On-to-Sta tape is of uniform top quality. It seals securely and remains perfectly flat.
- Qur creative art staff will skillfully prepare art work for 4-color tape to fit your particular needs.





Ask your local jobber about ATLANTIC'S 4 Color Tape, or contact us directly.

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POTDEVIN Flat and Square CELLOPHANE Specialty Bag Machine

Up to 300 well-formed, high quality bags a minute, Lip-type construction permits high speed conversion of P1 or MST film without fusing, assuring easy opening by hand or on automatic filling machines. Wide range of sizes — from 2" x 6½" up to 10½" x 16½".

Write for detailed information.



POTDEVIN MACHINE CO.

244 North Street Teterboro, N. J.

Designers and manufacturers of equipment for Bag Making Printing, Coating, Laminating, Gluing and Labeling

Plants and people

thur M. Cottrell, Jr., secretary; Karl G. Stillman, treasurer; Frank C. Szuter, assistant secretary; and David E. Dredge, assistant treasurer.

Cellu-Craft Products Corp., converter and printer of transparent and other flexible packaging materials, has opened a new plant in Addison, Ill. The new property covers 22,500 sq. ft. in suburban Chicago

wes vice Cra

Mr. Luckman and will serve the Midwestern area. Sid Luckman, vice president of Cellu-Craft, is in charge of all Midwestern operations.

Cellu-Craft is constructing a larger building in Long Island to house its home quarters. A new branch in Atlanta, Ga., is also in the blueprint stage.

Ernest E. Brown has been elected vice president of National Container Corp. of Ohio, the multiwall bag division of National Container Corp., New York. Mr. Brown's charge will include plants at Jaite, Ohio, and Kansas City, Mo.

Philip Crane has been appointed to the sales staff of Aluminum Foils, Inc., New York. Mr. Crane is a graduate of Amherst College and served with the U. S. Air Force during the Korean conflict. He will headquarter in the New York district of Aluminum Foil.



Mr. Crane

The sales department of the Plastic Div. of Monsanto Chemical Co., St. Louis, Mo., has promoted the following: Robert U. Haslanger to director of sales for raw materials including monomers and formalin; Chester L. Jones to director of sales for coatings and adhesives; Edwin L. Hobson to director of sales for plastics products; R. C. Evans, director of marketing; David S. Plumb to assistant director of sales for Opalon resins and compounds, industrial resins and polyethylene; Theodore S. Lawton to assistant director of sales for Vuepak sheets, Ultron film, Lustrex and Resinox; Stanley L. King to assistant director of sales in charge of Saflex products; James P. Skehan to the newly created post of director of field operations for the division.

The sales department has appointed the following as product sales managers: F. E. Woodhill, sheets and Vuepak; M. G. Caine, Opalon resins; S. F. Sylvester, textile resins; and J. B. Clopton,



PROTEX pads and blankets give you the maximum interior cushioning protection obtainable and fit virtually any product or assortment you can name! The cost is substantially lower than most other forms of interior cushioning and take only a fraction of the time to pack. Avail yourself of this important money-saving clean method of packing. The protection your products get is superb...resists all forms of shock and protects the finish of the product as well. Ease of packing, availability of ample supplies of packing material on hours noice are important too...you don't have to order far in advance of production or store supplies all out of proportion to their rate of consumption.

Consult US— Present your packing problems to us for complete package engineering design and service by experts. We will show you how to improve package performance and save money tool

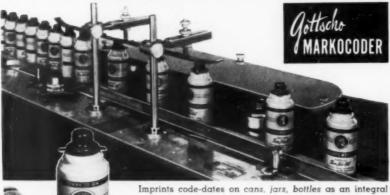
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NATIONWIDE SALES & DISTRIBUTION

CODE-DATES YOUR PACKAGE AS YOU PACK IT ... automatically



production-line operation ... during filling, capping, cartoning, etc. Makes sharp, permanent, accurately located marks on bottom, top or ends - even recessed surfaces. Fully automatic, the MARKOCODER synchronizes with speed of other mechanized operations...accommodates packages of different size...features 1-minute changeover for new code-date.

Write for full details today.

ADOLPH GOTTSCHO, INC.

Hillside 5, N. J.

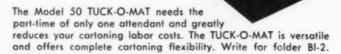
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In Canada: RICHARDSON AGENCIES LTD., Toronto & Montrea

REDUCE LABOR COSTS with the

TUCK-O-MA

tuck end carton set-up machine



CHECK THESE ADVANTAGES!

- · Handles wide range of carton sizes
- . Output of 4,000 cartons per hour
- · Quick changeover
- · Small and easily portable

CONVEY-O-MAT

The Model 54 CONVEY-O-MAT adds conveyor loading to the advantages of the TUCK-O-MAT. Delivers the set-up carton in upright position on the conveyor ready to receive your

MODEL 518 CARTON CLOSER Used with the CONVEY-O-MAT the Model 518 provides a complete cartoning system.

FORMERLY MACHINERY MFG. CO., INC.

2431 Dallas Street, Los Angeles 31, California

DIST. BY NEW JERSEY MACHINE CORP., HOBOKEN, CINCINNATI, CHICAGO, LOS ANGELES

Plants and people

monomers. J. D. Kirk has been named manager of sales training and Robert F. Hill has been made assistant sales manager of Opalon resins and compounds.

Lester J. Beaulieu has been promoted to manager, Special Products Div., Sherman Paper Products Corp., Newton Upper Falls, Mass. Mr. Beaulieu will devote his energies to the development and sales of

all products in Sherman's Special Products Div.



Mr. Beaulieu dustrial Div. of Sherman. Henry H. Hunter has been appointed

product publicity supervisor of Olin Industries, Inc., East Alton, Ill. Mr. Hunter will locate in the New York office.

N. C. Phillips has formed Phillips Associates, San Francisco, and will represent most of the packaging machinery and materials lines formerly handled through L. H. Butcher Co., which is withdrawing from sales in the Central and Northern California areas.

Rheem Mfg. Co., New York, has named Andrew W. Hughes to be Eastern Region manager in charge of the company's man-

ufacturing and marketing activities on the eastern seaboard. He will headquarter at the Burlington, N. J., plant. Thomas A. Kelly has been named to the newly created post of manager of manufacturing planning with offices at Richmond, Calif. Carlos H. Horne has



been promoted to assistant general manager of the company's Western Div. to assist division manager E. C. Bergen.

S. M. Blumenreich has joined the sales headquarters of Reynolds Metals Co., Louisville, Ky., as an economist.

Polyken Products, Dept. of Kendall Co., Chicago, manufacturer of pressure sensitive industrial tapes and protective tape coatings, has appointed W. J. Hodges field sales manager. Paul P. Sikorski has become staff assistant to the general sales manager, G. C. Stineback, while continuing to supervise Polyken office opera-



wet pack wizardry



Products can be packaged in liquid when these flexible, transparent cellophane bags are given an inner coating of BAKELITE Polyethylene.



with BAKELITE Polyethylene

PACKING THESE PRODUCTS in their own juices is the only way to keep them fresh and flavorful. An inner coating of BAKELITE Polyethylene on cellophane bags fills the bill for economical, flexible wet-packaging of these goods.

This combination of materials provides a glossy package that is heat-sealable, wonderfully transparent and, above all, leakproof. It resists crumpling and stays flexible at temperatures as low as -70° F.

The tough inner coating of BAKELITE Polyethylene gives added strength, "juice-proofness" and resistance to tearing and abrasion. Chemically inert, it defies acids and alkalies common to foods.

As a laminate or coating for cellophane, foil or paper, BAKELITE Polyethylene film adds strength, toughness and heat-sealability. Used as a wax additive it reduces rub-off and increases surface gloss. Some of its scores of other packaging uses include snap closures, flexible tubes and the increasingly popular squeeze bottles. Get to know more about this versatile plastic and see what it can do for your packaging. For information, write to Dept. UE-55.

Packages by Howard Plastics, Council Bluffs, Iowa, made from "POLYCEL"—a product of H. P. Smith Puper Co., Chicago, Illinois.

BAKELITE

Polyethylene

BAKELITE COMPANY

A Division of Union Carbide and Carbon Corporation

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PRESSES . . . Flexographic, Gravure, Letterpress, Lithographic (wet and dry)

BAG MACHINES... for notion, millinery, specialty bags — hand-grip, flat, square, gusseted and multiwall types

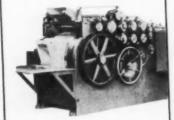
COATING and TINTING EQUIPMENT CONSTANT TENSION UNITS WEB GUIDES

REWINDERS - SLITTERS - SHEETERS STACKERS



phone





MANHASSET MACHINE CO.

Mineola, New York

Plants and people

tions. N. K. Rankin has been made district manager of the combined Central and Western Districts.

Private Brands, Inc., Clifton, N. J., has announced the following promotions: Robert A. Ehrlich to treasurer; Grace R. Hazard to secretary; Susan M. Dixon to vice president. The corporation has expanded its facilities at its Clifton address.

Products Packaging, Inc., contract packaging firm, has moved to larger quarters at 6400 Herman Ave., Cleveland, Ohio.



Chief attraction for 1,500 well wishers attending 75th anniversary ceremonies of the Chattanoga Medicine Co., Chattanooga, Tenn., was this specially designed high-speed tablet filler which delivers an average of 150 packages per minute.

John W. Douglas, president, Republic Foil & Metal Mills, Inc., Danbury, Conn., is a member of a four-man business executive team now touring Rome, Naples, Genoa, Turin and Milan for consultations with Italian businessmen. Other members selected by the Council for International Progress in Management, Foreign Operation Administration, are: John L. Dupree of Ivy Lee and T. J. Ross, N.Y.; Clifford Parsells of Ted Bates Advertising Agency, N.Y.; and Edward C. Sullivan, of Joske's, a Texas department store.

William J. Green has been elected executive vice president of the Thatcher Glass Mfg. Co., Elmira, N. Y. Mr. Green was formerly president of Stone & Co., Louisville, Ky., now a wholly owned subsidiary of Thatcher.

Special Products Co., Brooklyn, cargo packer, has been appointed by Radio Receptor Co., New York, to distribute the new Thermatron packaging sealer.

Roto Bag Machine Corp., New York, manufacturer of film converting machinery, received an award from the Greater New York Safety Council as one of the winners in the 11th annual Inter-Plant Accident Reduction Contest. Alfred Gans, chief engineer, received the award for Roto.

Union Bag & Paper Corp., New York, has made two changes in the company's Multiwall Bag Sales Div. J. E. Fitzsimmons, multiwall sales representative, has been transferred from the Chicago area office to Detroit. D. W. Rauch, formerly of the Chicago office, will be sales representative in Wisconsin and Illinois.

Visking Corp., Chicago, has acquired a 20-acre site near Flemington, N. J. for the construction of a polyethylene film extrusion plant.

Willis L. Rowlands has been appointed deputy director of the Containers & Packaging Div., Business & Defense Services Administration, U. S. Dept. of Commerce. Mr. Rowland, on leave of absence from Continental Can Co., New York, replaces Ross Perry, now assistant director.

Wabash Fibre Box Co., Terre Haute, Ind., corrugated manufacturer, is celebrating its 30th anniversary. The concern serves the Mid-West with a staff of 350.

John C. MacKeever has been elected board chairman of Western Lithograph Co., Los Angeles, succeeding Charles A. Ward, president and general sales manager of Brown & Bigelow, parent company of Western. Mr. Ward will remain a member of the Western directorate. H. O. Nelson has been elected production vice president. Also named to Western's board are: John L. Davidson, E. C. Peterson, M. B. House, and Dee McConnell.

Albert Olevitch has been named chief of the Packaging Section of the Protective Processes Wright Air Development Center, Wright-Patterson Air Force Base, Dayton, Ohio. Code designation for the new Packaging Section is WCRTH-5.

Arthur D. Little, Inc., Cambridge, Mass., has appointed Dr. Lawrence W. Bass and D. Reid Weedon as vice presidents of the firm. Stuart Hedden and William Webster have been made directors.

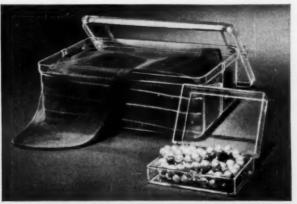
General Electric Co., Pittsfield, Mass., has appointed Vernon R. Childress as manager of marketing research and product planning for the Chemical Materials Dept.

Establishment of a new market evaluation unit with the Chemical Div.'s engi-

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STYRON CONTAINERS







Be sure to visit the Dow booth at the National Packaging Exposition... See what Styron packaging can do for you

Whether your product is large or small . . . whether it presents a simple or complicated packaging problem . . . you'll find it worth while to look into Styron® packaging. On display at the Dow booth will be attractive packages

in all shapes and sizes . . . all evaluated by the Dow Product Evaluation Committee to make sure they're top quality for the job they have to do. On hand, too, will be Dow representatives to help you solve your specific packaging problem and put you in touch with molders who have stock lines of these evaluated containers. Remember, your customers will always find it worth while to look into the product that is distinctively packaged in Styron! The Dow Chemical Company, Plastics Sales, Midland, Michigan.

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Please send me your Styron Rigid Container Catalog.

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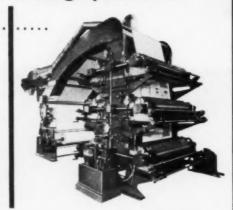
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Plants , and people

neering department of G. E. has been announced. J. Rae Stirrat has been named supervisor of sales development, and Leroy S. Moody has been appointed market analyst and product planning specialist. Both will locate in Pittsfield.

Brockway Glass Co., Brockway, Pa., has promoted James R. McGoldrick to district manager of the company's St. Louis office.

The company has opened a new general office in Brockway which consolidates departments which were formerly located in two separate office buildings.

Crossett Paper Mills, Crossett, Ark., has announced that grading and preparation of a new mill site is about 70% complete. The new mill, to include production of bleached board, is expected to be completed by the summer of 1955. D. B. Huhe is in charge of the expansion program.

Guy P. Harvey & Son Corp., Leominster, Mass., has elected the following officers: Wilfred G. Harvey, president and treasurer; Joseph E. Curley, vice president in charge of finances; Anthony W. Cunha, vice president in charge of production; George D. Winterer, vice president in charge of sales; William E. Smith, sales manager. Guy P. Harvey has retired as president and has been elected to the position of chairman of the board.

Specification Packaging Engineering Corp., Burbank, Calif., has opened a second plant at 2990 North San Fernando Blvd. in Burbank. Breo Freeman, Jr., will be in charge of the plant to be known as Spec Packaging's Boxing and Crating Div.

Charles W. North Studios, New York, has appointed H. Bettye Stout as production coordinator. Miss Stout has been active in working on problems dealing with printing ink, packaging, color and printing.

I. F. Schnier, founder of the I. F. Schnier Co., Inc., in 1909, died at his San Francisco home on Feb. 11.

Ed Menard, Sr., 68, sales and production manager of the R. C. Can Co., St. Louis, Mo., died suddenly of a heart attack on Feb. 5.

Edwin A. Walther, retired vice president in charge of production and costs of the Hinde & Dauch Paper Co., Sandusky, Ohio, died unexpectedly Feb. 28 in Ft. Lauderdale, Fla., at the age of 66.

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Famous "Scotch" Brand Cellophane Tape is a time-saving, money-saving tool for every packaging problem. Remember, it's crystal clear and sticks at a touch—tighter than ever before. Use it for holding, joining, protecting—any of a thousand different jobs. Tape does it faster, better, cheaper! For more information, and free test samples, write on your letterhead to Dept. MP-44.

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LOOK what you can do with it!



FASTEN FOIL WRAPPERS easily and quickly. In this cosmetic application, "Scotch" Brand Cellophane Tape is used in wrapping stick cologne.



SEAL BOX ENDS quickly and tightly. Here, a drug item is packaged with tandem-mounted Type "M" Box Sealers and "Scotch" Brand Cellophane Tape.



COMBINE CONTAINERS securely. "Scotch" Brand Cellophane Tape and Definite-Length Dispenser speed production, cut guesswork, stop waste!



"WRAP AROUND" bands combining two or more packages with "Scotch" Brand Cellophane Tape and new "Scotch" Combination Package Bundler. Makes a quick, easy promotion-merchandising deal.

For your information

A complete folder of information and technical data on Mylar polyester film, including samples, has been issued by the Film Dept. of E. I. du Pont de Nemours & Co., Inc., Wilmington, Del. The film is now available in three types and in thicknesses ranging from % to 75 mils. Pointing out that Mylar presently sells for from \$3 to \$4 per pound, D. D. Lanning of the Du Pont Film Dept. warns that packaging applications are "not in the foresceable future." In addition to cost, which the company expects will eventually be reduced through volume production efficiencies, Mr. Lanning points out that there is still no easy method of heat sealing Mylar. In addition to present uses drum liners for petroleum chemicals are mentioned as a potentiality.

Preparations are under way for the 17th annual convention of Super Market Institute, to be held at the Cleveland Public Auditorium, May 23-26. It is expected to be the largest convention in the Institute's history. Three main committees, laying out plans to show how supermarket operators will meet the challenge of a sharply changing economy and competitive situation, include the Committee on Store Operations, the Committee on Advertising and Merchandising and the Committee on Personnel.

The National Container Corp. has issued a series of six colorful posters on the subject of effective methods of avoiding freight damage. These posters, designed to be hung in the shipping room of manufacturers who use corrugated shipping containers, are available without charge from Dept. M. National Container Corp., 7 Central Park W., New York 23.

The Society for Advancement of Management announced a new program of management education in economics designed to achieve better understanding of basic economic processes through a series of roundtable discussions. The series is to be carried out by small groups of management representatives in local society chapters and is intended as a supplement to the work carried on by many other non-profit organizations to various phases of executive development. Robert H. Laws, professor, author and lecturer with broad experience in the field of economics, is Director of Economic Programs and will work with a national board of the Society including: Dr. Raymond C. Moley of Newsweek; David C. Lincoln of Lincoln Foundation; Edward W. Jochim of Personal Products Corp.; John Burger of General Mills; Dr. Joseph W. Towle of Northwestern University; John Imhof of General Electric X-Ray; and Joseph W. Page of Atlas-Boxmakers.

The theme of the American Management Assn.'s spring manufacturing conference scheduled for April 26-28, the Hotel Statler in Cleveland, will be how industry can cut costs by tightening its present production control techniques. More than 800 production executives are expected to attend. The AMA Manufacturing Conference exhibit of hundreds of company forms, charts and other visual materialsincluding a specially-prepared visual presentation by the Atomic Energy Commission and a model set up by Sylvania Electric Products, Inc.-will be open for inspection. J. Keith Louden, of York Corp. and AMA vice president in charge of the manufacturing division, headed the program council for the conference.

The Assn. of American Railroads, Washington, D. C., has appointed A. P. Kivlin chief engineer of the A.A.R. Freight Loading & Container Bureau. Mr. Kivlin succeeds Edward J. Dahill who is retiring from A.A.R. after 33 years of service to become director of market research for the Fourdrinier Kraft Board Institute, New York.

Advertising Display Center, Inc., has been opened at 58 Park Ave., New York, as a national center, reportedly offering a permanent exhibit of every conceivable type of point-of-purchase display and material. The announced purpose is to present in one place where it may be seen in less than an hour's time (1) all the different types of displays, (2) new and stimulating promotional ideas and gimmicks, (3) outstanding materials that have proved successful in practice. Information will be available on costs, production techniques, etc. Leonard Edwin Sturtz, display consultant, is president and technical director. M. Jeffrey Rhodes is president and research director. Gilbert H. Salke is secretary-treasurer and managing director. Admission is free by appointment.

The 4th Quality Control Seminar, designed for the graphic-arts industries, will be held at New York University the week of May 17 for five consecutive days. Donald Macaulay will again serve as director. The number of hours of previous seminars will be doubled and the course will not only cover the statistical theory of quality control, but practical applications of it in the fields of four-color lithography, folding carton, letterpress, as well as for paper buying and other material purchasing problems. For detailed infor-

mation on the course, write Prof. Sidney G. Roth, Assistant to the Dean, Div. of General Education, New York University, 3 Washington Sq., North, New York 3.

Among the latest industry developments to be emphasized at the Fifth Western Packaging & Materials Handling Exposition to be held in San Francisco's Civic Auditorium Aug. 17-19, are fork-lift-truck power steering, packaging with laminated aluminum foil and board or acetate and paper, and applications of new polyethylene films and sheeting. Management of the show, which is sponsored by 24 leading California industry leaders, points out that exhibitor response has already assured a comprehensive review of packaging and materials-handling.

The Dennison Mfg. Co. has issued a new 12-page illustrated booklet entitled "If You Could Only Be at Every Point of Sale" to stress the fact that only by informative labeling can a manufacturer tell the consumer all the facts about the merchandise. Copies are available on request to the Advertising Dept., Dennison Mfg. Co., Framingham, Mass.

Announcement has been made of the Spanish International Sample Fair to be held May 15-30 in Valencia, Spain. A special section will be devoted to packaging machinery and packaging in general, with

What's Doing

Apr. 22—Packaging Assn. of Canada, Second Canadian Point-of-Purchase Advertising Conference, King Edward Hotel, Toronto, Ont., Canada.

Apr. 25-29—National Refrigerated Warehouse Assn., Boca Raton, Fla.

Apr. 26-28—A.M.A. Conference on Manufacturing, Hotel Statler, Cleveland, Ohio.

Apr. 26-28—Pacific Northwest Bakers Conference, Multnomah Hotel, Portland, Ore.

Apr. 29-30-Pennsylvania Mfg. Confectioners' Assn., Annual Production Conference, Franklin & Marshall College, Lancaster, Pa.

May 10-11—Technical Assn. of the Graphic Arts, Sixth Annual Meeting, Schroeder Hotel, Milwaukee, Wis.

May 11-13—Toilet Goods Assn., Inc., Annual Convention, New York.



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Cut packaging costs . . . improve the appearance of your packages ... and increase sales.

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design-engineers develop the plastic package which will put your product far ahead in sales and profits. From start to finish, you can depend on CLAREMOULD for expert workmanship, economy, and prompt service.

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For your information

a miniature laboratory demonstration of up-to-date methods of testing packaging and estimating the amount of protection necessary for various types of articles. Antonio B. Caragol of the American Chamber of Commerce in Spain will be honorary United States delegate.

The American Institute of Chemical Engineers will hold its spring national meeting in Springfield, Mass., Kimball Hotel, May 16-19. The program will include a forum on "Training of Technical Men in Industry" and symposiums on "Polymeric Materials of Construction," "Cost Control" and "Process Design," as well as general technical sessions.

The 22nd annual meeting of the Packaging Machinery Mfrs. Institute will be held Sept. 23-26 at Grove Park Inn, Asheville, N. C., according to an announcement by Robert T. Foreman of R. A. Jones & Co., institute president.

J. Gibson McIlvain, Jr., of Downington Paper Box Co., has been appointed vice president of the Gravure Technical Assn.'s Packaging Division. This vice presidency was created by a recent change made in the association's by-laws.

The Kraft Paper Assn., Inc., at its recent annual meeting re-elected Walter C. Shorter of Camp Mfg. Co. as president and H. S. Daniels of Union Bag & Paper Corp. as vice president. The following were named to the executive committee: W. M. Allin of Southern Advance Bag & Paper Co., Inc.; W. A. Brown of Crown Zellerbach Corp.; J. B. Cowie of Hollingsworth & Whitney Co,; S. D. Fleet of Albermarle Paper Mfg. Co.; L. W. Gould of Gaylord Container Corp.; J. C. Hair of Crossett Paper Mills; G. F. Henderson of Brown Co.; W. L. Jennings of West Virginia Pulp & Paper Co.; H. C. Lawless of Gilman Paper Co.; T. H. Mittendorf of Hudson Pulp & Paper Corp.; R. A. Nash of Sorg Paper Co.; George Stuhr of International Paper Co.; and R. L. Vayo of St. Regis Paper Co.

The Proprietary Plastics Mfrs. Assn. has elected the following officers for 1954: president, Richard A. Winter of Federal Tool Corp.; vice president, D. S. Poulton of Columbus Plastic Products, Inc.; treasurer, W. R. Sauey of Flambeau Plastics Corp.; secretary, J. L. Sholkin of Beacon Plastics Corp.; executive secretary, R. J. Robertson of Chicago; general counsel, S. H. Young, III, of Chicago. Elected as directors, in addition to the officers, are: J. B. Mockenhaupt of Victory Mfg. Co.;

Makes POLYETHYLENE a pleasure to print!

the distinguished new Halley '54'

4-color Flexographic (aniline) press...

web widths 30" and 45"

Halley engineers to known high standards. At once precise and practical, in terms of beautiful printing economically produced.

Halley, and only Halley, affers constant tension control with dial recorders, one of many patented, time-proven advantages to assure closer register on polyethylene and kindred extensible products. Unwind, printing, and rewind tensions are separately adjustable, uniformly maintained at predetermined tensions.





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*Patented process manufactured under one or more of the following patents: 2,460,460; 2,509,439; 2,574,094; 2,574,095.

Vertrod

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Top Production Speed Complete Operator Safety

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- All Thermal Impulse Heat Sealers
- seal through wrinkles, gussets, liquids and powders
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High speed, straight line screw capper. Rated for speeds up to 300 per minute depending on size of container.





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Automatic innerseal machine for selecting and applying standard innerseals to various types and sizes of tin cans as commonly used in the oil industry.

Agents in principal cities throughout the United States and Canada

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For your information

M. R. Sangerman of Nu-Dell Plastics Corp.; D. D. Lovitz of Bernard Edward Co.; L. H. Barnett of Loma Plastics, Inc.; D. L. Jocelyn of Plastray Corp.

The 15th Management Course of the College of Engineering, State University of Iowa, will be held June 14-25 in Iowa City. Since its inception, more than 1,000 representatives from all industries have attended this intensive course for factory managers, foremen, industrial engineers, methods and time-study analysts, cost accountants and office executives. It covers production planning, job evaluation, motion and time study, wage incentives, plant layout, materials handling, quality control, supervisory training, labor relations and legislation, organization and policy and public speaking. For information write to J. Wayne Deegan, 120 Engineering Bldg., State University of Iowa, Iowa City, Iowa.

The Waterproof Paper Mfrs. Assn., at its recent meeting in Cleveland, unanimously re-elected Leif B. Norstrand of Specialty Converters, Inc., as president and David E. Ryan of Edgewater Paper Co. as vice president. Philip O. Deitsch was retained as the association's administrative officer for the 13th consecutive year. Elected to the board of directors are: J. E. Harvey, The Sisalkraft Co.; E. A. Rounseville, Glas-Kraft, Inc.; Walter C. Shorter, Camp Mfg. Co.; S. A. Feely, Keystone Roofing Mfg. Co.; E. A. Skidmore, Cincinnati Industries, Inc.; A. J. Theil, Angier Corp.; David Weil, Cromwell Paper Co.; Charles G. Wood, Simplex Paper Corp.; John Lang, The Ruberoid Co.

The American Society for Testing Materials has published a 24-page booklet entitled "Some Unsolved Problems," a compilation by ASTM's Adntinistrative Committee on Research to stimulate studies of those properties of materials concerning which information is needed. Free copies are available from the American Society for Testing Materials, 1916 Race St., Philadelphia 3.

The Society of Industrial Packaging & Materials Handling Engineers at its recent annual meeting of national officers and directors reviewed plans for the Ninth Annual Industrial Packaging & Materials Handling Exposition to be held in Chicago, Sept. 28-30. R. K. Newton, Supervisor, Engineering Extension Div., University of Illinois, reported on plans for the concurrent Short Course, which the University of Illinois will sponsor for the third time.



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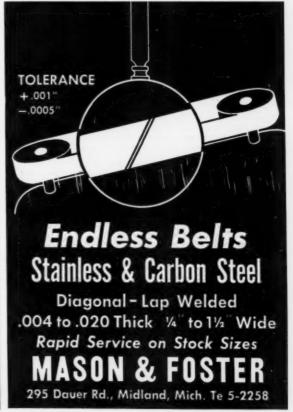
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U.S. patents digest

This digest includes each month the more important patents of interest to those who are concerned with packaging materials. Copies of patents are available from the U. S. Patent Office, Washington, at 25 cents each in currency, money order or certified check; postage stamps not accepted. Edited by H. A. Levey

Packaging Method, E. J. Ryan and W. C. Van Siclen (to Standard Oil Development Co., a corporation of Delaware). U.S. 2,666,523, Jan. 19. A package which consists of a container coated on the surfaces and edges with a thick protective polyvinyl ether resin film and a tacky cold-flowing synthetic isobutylene containing polymer contained therein, the polymer being substantially non-compatible with said protective film and being in contact with the container only at the surfaces having said protective film.

Adhesive Metal Foil, Bottle Cap Thereof and Method, C. S. Price, New York, N.Y. U.S. 2,666,542, Jan. 19. The method of making a substantially tamperproof closure for a corked bottle, comprising cutting from foil, one side of which is coated with heat-softening resin-type cement on top of which is a coating of remoistening glue, a sector of the proper size for fitting the top portion of a bottle neck, same being provided with a tear strip.

Container Having a Distortable Flow-Control Means, J. J. Hopfield (to the United States of America as represented by the Secretary of the Navy). U.S. 2,666,545, Jan. 19. A one-piece gas container, made entirely of vitreous material capable of withstanding internal super-atmospheric pressure, said container having a tubular stem affording a passage thereinto, a valve likewise made of vitreous material located in stem and completely enclosed thereby, valve comprising a tube having a helicoidal crack therein that may be opened by forcible twisting of tube, the inner end of tube being sealed and fused to an adjacent portion of the tubular stem, the other end of tube being open and sealed hermetically to the surrounding portion of the tubular stem.

Means for Crating or Boxing Bottles and for Removing Bottles from Crates or Boxes, J. E. Birch, Walverhampton, England. U.S. 2,666,562, Jan. 19. In a machine for handling bottles, the combination of lifting means for a number of spaced rows of bottles, spacing means incorporated in lifting means for spacing lifted bottles apart in the rows and conveying means for said lifting means whereby a number of spaced rows of bottles can be lifted.

Closure-Cap Feeding Device, H. E. Stover (to Anchor Hocking Glass Corp., Lancaster, Ohio). U.S. 2,666,563, Jan. 19. In a closure-cap feeding device, the combination of rotatable means for separating successive closure caps from a stock of closure caps, reciprocable means above and adjacent said rotatable means for supporting closure caps out of contact with rotatable means, a housing carrying said rotatable means and reciprocable flowars.

Filling Machine, E. S. Minard (to The Pfaudler Co., Rochester, N.Y.). U.S. 2,666,564, Jan. 19. In a filling machine, the combination of a reservoir, a cylinder having a piston operable therein and a rotatable valve, said valve having an intake port and a discharge port extending completely through the valve, means for rotating said valve to either of two positions.

Mechanism for Filling Cartons, A. A. Barnes and R. Spurr (to Oswego Falls Corp., Fulton, N.Y.). U.S. 2,666,565, Jan. 19. Apparatus for filling open-ended cartons comprising a guide rail adapted to support a procession of cartons, a plurality of liquid-dispensing units, each adapted when operable to dispense a pre-determined quantity of liquid into cartons positioned in registration with said units.

Carton, E. C. Mulnix, Lake Bludd, Ill. U.S. 2,666,566, Jan. 19. A carton structure comprising opposed pairs of walls foldably interconnected to form a tubular carton body which is foldable to flat, collapsed condition by folding on lines of connection between said walls.

Interfitting Lock, R. A. Farrell (to Marathon Corp., Rothschild, Wis.). U.S. 2,666,567, Jan. 19. In a paperboard carton, an interfitting lock comprising at least two interfitting flaps hinged

to said carton and lying entirely in a substantially common plane when locked, one of said flaps presenting an integral tongue and the other having a slit therein for receiving said tongue, slit being shaped to provide a three-sided tab in said other flap, having its free end opposite to the free end of other flap, a hinge in slitted flap transversely thereof including score lines aligned with a portion of slit to locate three-sided tab entirely within outer panel of said other flap formed by said hinge.

Soft Plastic Food Package, L. Peters, Evanston, Ill. U.S. 2,666,710, Jan. 19. In a soft plastic food package, the combination comprising a thin, flexible thermoplastic film providing a reversible cup, said cup having downwardly and inwardly tapering side walls and a bottom wall having upwardly extending portions, a support disposed about said cup, cup being suspended from support so that said cup can be reversed and with the side and bottom walls of cup out of contact with support, a soft plastic food body within said cup conforming to its shape and pressing downwardly against the upwardly extending portions of bottom wall so as to tend to depress said upwardly extending portions.

Band-Forming Machine and Process, F. E. Monks (to Fuller Label & Box Co., Pittsburgh, Pa.). U.S. 2,667,108, Jan. 26. In a machine for forming bands from flat blanks of flexible sheet material, the combination of means for supporting a stack of blanks, a tubular mandrel having an apertured wall, a hollow picker valve movable into position to seat the mandrel within said valve with the outermost portion of the mandrel surface substantially aligned with the outer surface of the valve, means for creating a suction in mandrel transmitted to valve whereby withdrawal of the mandrel and valve withdraws outermost blank from stack with spaced portions of blank engaging the mandrel and valve, respectively.

Package of Fragile Articles, H. Amatel (to Westinghouse Electric Corp., East Pittsburgh, Pa.). U.S. 2,667,267, Jan. 26. A package of three like incandescent electric lamps comprising an outer four-sided, open-ended paper casing having a corrugated interior wall, two four-sided open-ended paper wrappers also having corrugated interior walls, each containing an incandescent electic lamp and completely occupying an end space with said casing.

Handled Carton for Bakery Products and the Like, R. McReary, Corvallis, Ore. U.S. 2,667,297, Jan. 26. In a handled carton having a bottom section with front and side walls and a hinged cover section with front and side walls extending over said walls of bottom section, respectively, an upwardly extending flap centrally located on front wall of bettom section, the top portion of flap broadened to form a pair of tongues extending laterally from opposite side edges of flap, a pair of locking slits for tongues on front wall of cover section and a strap-like handle on cover section.

Method and Apparatus for Handling Sliced Food, B. E. Meulemans and W. A. Nelson (to Swift & Co., Chicago, Ill.). U.S. 2,667,420, Jan. 26. A method of producing a bundle of slabs of food with portions of divider material between the slabs from a block composed of a plurality of slabs, method including moving the end slab away from the remainder of the block by blowing a blast of fluid along the line of juncture therebetween.

Packaging Commodities, W. J. Parks (to Owens-Illinois Glass Co., a corporation of Ohio). U.S. 2,667,421, Jan. 26. A package comprising an impervious container with dried fruit placed therein and a cap hermetically sealed to the container, said sealed container containing propylene oxide at sub-atmospheric pressure.

Packaging, Storing and Vending Frozen Concentrates and the Like, H. A. Simpson, Oviedo, Fla. U.S. 2,667,423, Jan. 26. An article of manufacture for storing fruit juices adapted for preservation at sub-freezing temperatures, comprising a container hav-



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Ekco-Foil, the wonderful new pre-shaped aluminum foil package, offers advantages no other packaging material can duplicate! You can prepare your product in Ekco-Foil . . . freeze or refrigerate it in Ekco-Foil . . . then sell it in the same attractive Ekco-Foil package. Labor costs go way down . . . and sales go way up! Your bright silver Ekco-Foil package promises quality and convenience to Mrs. Consumer. She just reheats and serves your product right in its Ekco-Foil package. And she can reuse the package too!

Ekco-Foil makes it practical for you to take advantage of this new packaging material right now, because Ekco-Foil is available for immediate delivery in every size and shape you need! Only Ekco has a complete selection! Only Ekco can make your foil containers in any quantity!

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() Please have representative call.

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ing an interior chamber, an ice shell secured in interior chamber and a quantity of fruit juice completely enclosed and sealed within said ice shell in the absence of air.

Packaging and Dispensing Frozen Beverage Forming Concentrates, J. H. Kauffman, Eustis, Fla. U.S. 2,667,422, Jan. 26. The method of packaging frozen beverage forming concentrates for storage and dispensing purposes comprising introducing a pre-determined quantity of said concentrate in each space provided between a plurality of pre-determinedly spaced nested disposable cups and detachably sealing said cups together in fluid-tight relation by a temperature-responsive seal remaining intact while said concentrate is frozen.

Apparatus and Method for Filling Products in Containers, W. McK. Martin (to James Dole Engineering Co., a corporation of Nevada). U.S. 2,667,424, Jan. 26. The method of continuously filling a pumpable product in containers of the type having outwardly extending flanges at their open mouths which comprises effecting continuous uninterrupted flow discharge of a bodily fixed stream of the product at a fixed zone and at a predetermined fixed quantity per unit of time, moving a line of containers toward said stream.

Machine for Forming Bottle-Top Covers, H. O. Potter and L. R. Carrigan (to General Metals Co., Chillicothe, Ill.). U.S. 2,667,823, Feb. 2. A machine for forming bottle-top covers comprising a plurality of jaws relatively pivotal about vertical axes, a mandrel swingable about a horizontal axis from a generally horizontal axis from a generally horizontal feeding position to a vertical position in the jaws, a clamp being carried by the mandrel to hold a sheet thereon and means provided to open the clamp when the mandrel is in feeding position.

Shipping and Display Case for Shavers and the Like, I. Jepson and F. E. Cerveny (to Sunbeam Corp., Chicago, Ill.). U.S. 2,667,966, Feb. 2. A storage and display case for an electrical appliance having a detachable power cord, comprising a body having an upwardly facing recess for the reception of the appliance and a downwardly facing chamber for the reception of said power cord, a cover for upwardly facing recess to enclose an appliance disposed therein.

Self-Sealing Dispensing Device, H. N. Perelson, Los Angeles, Calif. U.S. 2,667,986, Feb. 2. A self-sealing dispensing device comprising a stopper adapted to fit the neck of a bottle, said stopper having a rigid base, a hollow needle mounted upon base and connecting through the latter with a space therebeneath, a pointed end portion of needle extending upward out of said base.

Packing Machine, D. R. P. Jackson (to Molins Machine Co., Ltd., Deptford, London, England). U.S. 2,667,987, Feb. 2. Stamp-applying mechanism, adapted to apply an adhesive-coated stamp to a packet so that the stamp lies flat across the end face of the packet and protrudes beyond the planes of the broad faces thereof, a pressure plate adapted to engage and hold the stamp in said position, movable tuckers to engage and fold down the protruding ends of the stamp onto the broad faces of the packet and means operable thereafter to move the pressure plate in a direction to push the packet away from the tuckers while the latter remain stationary.

Dispensing Valve for Pressurized Dispensing Containers, R. K. Boyer (to The Dill Mfg. Co., Cleveland, Ohio). U.S. 2,667,991, Feb. 2. An aerosol self-contained valve assembly adapted for hermetic sealing to a receptacle having contents under pressurized condition.

Tooth-paste Tube Having a Hollow Head With a Cap Fitted Thereon for Controlling Dispensing, E. M. Hammond and B. F. Hammond, Brainerd, Minn. U.S. 2,667,992, Feb. 2. The combination of a flexible tube having a substantially spherical hollow head with a pair of oppositely disposed discharge apertures and a cylindrical neck connecting said head with said tube, a cap mounted rotatively on head, said cap including a substantially hemispherical top wall located on head, a nozzle having a longitudinal orifice in the upper part thereof fixed to wall.

Pressurized-Container Valve, J. E. Ayres (to Oil Equipment Laboratories, Inc., Elizabeth, N.J.). U.S. 2,667,993, Feb. 2. A dispenser valve mechanism for a pressurized container having a closure cap comprising a tubular valve body of sheet material having imperforate side walls and being open at its ends.

Paired-Bag Filling Machine, C. W. Vogt, Norwalk, Conn. U.S.

U.S. patents digest

2,667,997, Feb. 2. A machine for filling pre-fabricated bag pairs connected together in pairs in chain formation by a pair of tapes, one on each of the outer faces of each of the bag pairs, said machine comprising spaced filling means thereon.

Bottle-Capping Machine, H. G. Vore and A. C. Magalos (to American Seal-Kap Corp., Wilmington, Del.). U.S. 2,667,999, Feb. 2. A machine for conditioning and dispensing pre-formed hood caps having a pleated skirt with a band of thermoplastic adhesive therearound for application to bottles, said machine comprising a magazine including a dispensing tube for holding a stack of nested caps, a chute through which caps are delivered to the cap-applying station of a bottle filling and capping machine, and a cap picker mechanism by which caps are successively withdrawn from dispensing tube and put in said chute.

Mouthpiece for Cap Magazines, F. C. Rodman (to American Seal-Kap Corp., Wilmington, Del.). U.S. 2,668,000, Feb. 2. In a bottle-capping machine, a magazine adapted to receive a stack of nested hood caps having a central diaphragm portion and rearwardly flaring skirts, a mouth ring disposed at the forward end of magazine and having a flange engaging the skirt of the foremost cap to retain the stack in magazine and having an opening through which cap is withdrawn.

Valve Bag, T. L. Jones (to Arkell & Smiths, a corporation of New York). U.S. 2,668,003, Feb. 2. In a non-gusseted bag having walls comprising a plurality of plies of paper with an end closure of end flaps formed by infolding opposite portions of the bag wall and side flaps also formed by infolding opposite portions of the bag wall covering said end flaps, the combination comprising a transverse slit in the outer ply of one of the end flaps which delineates a valve and valve-action area extending inwardly between the plies of the end flap from slit to inner edge of bag wall.

Machine for Manufacturing Valve Bags, P. C. Robinson (to Arkell & Smiths, Canajoharie, N.Y.). U.S. 2,668,481, Feb. 9. In a machine for forming a sleeve valve bag, comprising means for feeding gussetted bag tubes longitudinally one behind the other, each bag tube having a valve extension on the advancing end thereof, said end of bag tube being spread and flattened to provide side flaps and end flaps overlying the side flaps.

Labeling Machine, R. F. Zimpel (to Beech-Nut Packing Co., Canajoharie, N.Y.). U.S. 2,668,632, Feb. 9. A machine for applying labels to cylindrical containers, the labels having heatsensitive adhesive on one side thereof, a rotatable drum adapted to receive the labels on the peripheral surface thereof with the labels arranged end to end and spaced apart and with the adhesive side of the labels outermost during the rotation of the drum in one direction, said drum comprising a plurality of annular disks arranged side by side and spaced apart, with suction means for drawing air inwardly from between disks so as to cause the labels to be retained on said surface during rotation of the drum and means for feeding containers one behind the other and spaced apart to present their cylindrical surfaces to the peripheral surface of the drum.

Bag-Filling Device with Valved, Pivotally Mounted Chute, E. W. Carlsen, Yakima, Wash. (dedicated to the free use of the People in the Territory of the U.S.). U.S. 2.668,648, Feb. 9. A bag-filling device comprising an open chute having a free end and so shaped that an operator may slip over the chute an open bag to be filled with fruit or vegetable produce.

Egg Carton, H. Riehard Russell (to General Package Corp., Chicago, Ill.). U.S. 2.668,652. Feb. 9. A molded-pulp egg carton comprising a pair of generally similar, cellular tray section integrally hinged to one another along a bend line and subdivided into rows of egg-receiving cells.

Carton, W. G. Freel and S. F. Jones (to William P. Frankenstein, Cincinnati, Ohio). U.S. 2.668,654, Feb. 9. In a box or carton formed from a single blank, comprising a panel forming the carton base having integrally hingedly connected to each edge of base an extension, said extensions from two opposed edges each being respectively scored to form a hollow and wall, each end wall comprising an inner-wall member, a top-wall member, an outer-wall member of greater length than the inner-wall member and a bottom-wall member between the outer-wall member and bottom panel, said extensions from the remaining edges of the base panel forming between them a carton front and back walls each having an inner-wall member, an outer-wall member and a top-wall member together with a cover formed of a pair panels each of an area substantially equal to the carton area as established by the walls.



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EQUIPMENT . SUPPLIES . SERVICES

ROLLERS FOR OVERALL DESIGNS. Bulletin describes the advantages of using design rollers for printing continuous all-over patterns and multiple-unit jobs on rotary web presses. Tells conditions under which design rollers should be specified. Mosstype Roller Co., Inc. (D-451)

SELT CONVEYOR. Folder gives data on Conveyor Specialty's "Unitable," a selfpowered portable belt conveyor for assemby-line inspection and packaging. Conveyor Specialty Co., Inc. (D-452)

MILITARY PACKAGING SUPPLIES. "Flexkin" folder contains samples and data on a number of protective barrier materials which are approved for use under specifications MIL B-131 A, JAN-P-131 (Amendment 3, Type 1), AN-B-20 (Type 2). Price list included. Acme Backing Corp.

PAPER PROCESSING MACHINERY. Booklet shows a complete line of machinery for processing paper products, including printing presses, waxers, combiners, etc. Hudson-Sharp Machine Co. (D-454)

HEATED PROCESSING TANKS. Electrical and gas heated tanks for heating, melting and dipping plastics, waxes and similar compounds are discussed in a bulletin issued by Aeroil Products Co., Inc. 10–455)

EMBOSSING MACHINES. Bulletin describes hand operated and power operated embossing and hot stamping machines for producing printed box covers, labels and similar items. Craftsmen Machinery Co. (D-456)

CLOSING SMALL PAPER BAGS. Bulletin emphasizes the importance of speed and deconomy in closing small paper bags and discusses various "Union Special machines for this job. Illustrates the Style 60,000 D sewing head, and advantages of the "Dubl-Tape" closure. Union Special Machine Co. (D-457)

WEB UNROLLS. Five styles of unrolls and various types of web processing equipment are described in a folder issued by John Waldron Corporation. (D-458)

POLYETHYLENE BAGS AND LINERS. Folder suggests packaging application for polyethylene bags and liners. Lists advantages of these materials and describes a special seal featured by Plastic Packaging Co. (0-459)

LABEL PRINTER AND ADDRESSER. Descriptive folder on the Weber "Tag-O-Graph," a machine which automatically prints shipping labels, addresses them, and cuts them to size. Weber Addressing Machine Co. (D-460)

EXPORT PACKAGING IN NAILED WOODEN CONTAINERS. Booklet analyzes nailed containers in terms of protection required for various types of loads. Examines nailing, strapping, bracing, and marking procedures, and how specifications are determined. National Wooden Box Association. (D-461)

RADIANT HEAT PANELS. Data on "Chromalox" far-infrared radiant heat panels for speeding the drying of inks, giue, paper varnishes, and silk sereeaing. Edwin L. Wiegand Co.

FILLING SCALES. Specification data en Thayer automatic gross weight and net weight filling scales for bags up to 200 pounds, Thayer Scale & Engineering Co. (D-443)

VARIGRAPH LETTERING INSTRUMENT. Details about a device which enables anyone to produce professional-looking lettering at high speed. Illustrations of the wide range of available type styles and sizes. The Varigraph Co., Inc. (D-464)

VCI-LINED BAGS. Newly developed VCI-lind, cushioned bags that protect delicate metal parts from both shock and corrosion. Includes data on applications, protective qualities and stock sizes. Jet-Pak, Inc. (D-465)

"VISKON" NONWOVEN FABRICS. Booklet contains samples of "Viskon" nonwoven cotton and rayon fabrics which are heat sealable, exceptionally porous, wet strength and sanitary for food packaging applications. The Visking Corporation.

(D-466)

AMPULE AND TUBE SEALER. Information on "Labsoal" Model H S-1, a unit for sealing all types of ampules and glass tubes. Popper and Sons, Inc. (D-467)

SETTING-UP MACHINE FOR GLUE LAP BOXES.
Data on a duplex automatic machine for setting-up conventional glue lap boxes and covers at high speed. Inman Mfg. Co.
(D-448)

ROTARY CORKING MACHINE. Information about a new automatic rotary corker which applies all sizes or flanged corks to all types of bottles at speeds from 50 to 100 per minuts. U. S. Bottlers Machinery Co. (D-469)

ROLL LASSI. PRESS. Bulletin talls how the Champlain Roll Label Press discuts, perforates, slits, and rewinds rolls of labels and tags in one operation. Prints by flexography or rotogravure. Champlain Company, Inc. (D-470)

PROTECTIVE WEAPPING. Booklet illustrates protective wrapping of upholstered furniture using non-staining, tear and oil resistant "Thiloo-Tuf," a creped kraft-fiber reinforced flezible wrap. Thilmany Pulp and Paper Co.

BOX MAKING EQUIPMENT. Bulletin describes a single stayer and a duplex corner cutter for use in the manufacture of paper boxes. Hobbs Mfg. Co. (D-472)

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MERCHANDISING PREPACKAGED PRODUCE.
Reprint of a speech outlines in detail what can be done at all prepackaging levels to insure the flow of fresh produce packages into the hands of consumers. Sylvania Div., American Viscose Corp. (D-473)

GUMMED TAPE. Sample strips of "Sterling Supreme" and "Trojan Imperial" gummed tapes, plus folder on "Jet Tape" which features a nylon string down the middle for easy opening of cartons. The Gummed Products Co. (D-474)

CHRISTMAS TOPPERS FOR BAGS. Folder contains samples of multicolor printed toppers which can be used to convert any film bag into a Christmas specialty item.

James Thompson & Co., Inc. (D-475)

PORTABLE SCALES. Bulletin on Toledo "2000 series" portable scales for general industrial use which feature a new, larger platform. Capacity from 125 to 2,000 pounds. Toledo Scale Company. (D-476)

AEROSOL VALVES. Description of the construction and features of Schrader aerosol units with "Presdome" caps and tamper-proof locking tabs. A. Schrader's Son. (D-477)

FILLING MACHINES FOR FREE FLOWING PRODUCTS. Data on rotary "Whiz-Packer" filling machinery for handling containers with restricted openings, for filling products requiring settling in a tight pack, and for eliminating product dusting. Frazier & Son.

HI-SPEED CUTTER-LAYBOY UNIT. Informative folder covers the features and operation of the Clark-Aiken Type "D" Cutter-Layboy Unit for sheeting all types of paper and film, for finishing room service, and for use by converters and printers. The Clark-Aiken Co. (D-479)

PRESSURE SENSITIVE LABEL DISPENSER. Folder on a new high speed label dispenser for pressure sensitive labels. Includes specifications and illustrations of typical pressure sensitive label designs. A. M. Steigerwald Co. (D-480)

PHOTOGRAPHIC PREPARATION OF SILK SCREENS. Two bulletins explain how to use Kodak "Ektagraph" film for rapid preparation of silk screen printing screens from line or continuous tone copy. Eastman Kodak Co. (D-481)

VACUUM FEED LABELING MACHINE. Bulletin explains the features and operation of the Mercury "Vacuumatic" heat sealing and labeling machine which feeds, folds, and seals label and bag in one automatic operation. Mercury Heat Sealing Equipment Co. (0-492)

ELECTRONIC METAL DETECTOR. Material on an electronic unit to protect packaging lines from magnetic and non-magnetic tramp metal. Radio Corporation of America. (0.483)

SAFETY SEAL AEROSOL VALVES. Permanent shelf-life valves for containers of insecticides, deodorants, aromatics, etc., are described in a folder issued by the Dill Manufacturing Co. (D-484) STOCK PLASTIC BOXES. Folder illustrates twenty-nine stock plastic boxes which are available in small or large quantities without mold cost. Bradley Industries. (D-485)

AUTOMATIC NECK BAND SEALING MACHINE. Data on a unit which automatically applies pre-cut cellulose bands to flat and round half-pint, fifth, and quart size bottles at speeds from 50 to 165 per minute. Gisholt Machine Co. (D-486)

GRAVITY CONVEYOR. Specifications, prices, and charts of light-weight aluminum gravity conveyors are contained in bulletin that includes drawings and illustrations of this new model. Rapids-Standard Co., Inc. (D-487)

PLASTIC LINERS FOR BOXES AND DRUMS. Reprint from Modern PACKAGING describes the advantages of using liners made of polyethylene and other plastic films to broaden the utility of boxes, drums, kraft bags, and other shipping containers. Diaphane Corporation. (D-488)

VENTILATED FILM. Details on the advantages of using "Respiro-Pak" ventilated film for superior prepacking of produce. Cello-Masters, Inc. (D-489)

VIALS FOR DRUG PACKAGING. Bulletin explains the advantages of using "Clearsite" clear or green plastic capsule vials for packaging pharmaceutical products, Celluplastic Corp.

"BBD NEWS AND TIPS." Latest issue of this newsletter contains articles of interest to paper converters and package printers. Bensing Bros. & Deeney Sales Co. (0-491)

DIE CUTTING AND EMBOSSING PRINTING PRESS. Bulletin describes a versatile press that blanks, stamps, die cuts, creases, and embosses, and which also does color printing on all paper stocks from light board to heaviest board. The Chandler & Price Co. (D-492)

"SHADOGRAPH SCALES." Data on scales which use the "Shadograph" principle to eliminate inaccurate reading of weights. Describes six different types of scales using this principle. The Exact Weight Scale Co.

UNIVERSAL MARKER. Bulletin on the Algene Roller Printer which replaces stencils in the marking of packages, shipping cartons, drums, burlap bags, etc. Uses interchangeable rubber-type. Algene Marking Equipment Co. (D-494)

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Contract packaging

(This article continued from page 77) powder in a foil pouch. The unit operates by taking the pouches from a magazine by vacuum, conveying them to a filler, opening them, filling the powder and sealing the pouch.

The plant-food packaging job is typical of the contractor's extensive activities in the chemical-specialties field, where increasing numbers of consumer products are being introduced by large chemical manufacturers who are geared and set up for bulk operation and for whom the different requirements entailed in retail-type packaging would be out of line.

Another contractor specialty is packaging for export. A number of contract firms concentrate on this type of service and their constant volume permits economies in labor and in the procurement of packaging supplies which the product manufacturer might find difficult to equal—especially since export business is subject to considerable fluctuation.

A reverse type of operation is the service performed by custom packagers for imported goods. One contractor, for example, receives imported china packed in casks and assembles the china into sets for which he has designed domestic-shipment packages. The erratic frequency of incoming shipments would make it financially unfeasible for the pottery in England to maintain a steady staff for receiving and repacking.

Examples like those given above can be cited in great number. They all illustrate packaging problems which the contractor is uniquely equipped to handle. The packaging of eye droppers, wrapping or inserting of coupons, assembly of oddshaped items, filling of very small or very large containers-all these and many more are logical candidates for contract service. The continuing rise in popularity of unit and strip packages and the progress made in developing speedy but relatively costly machines for forming, filling and sealing flexible packages have opened up natural opportunities for the contractor to expand his activities. As a result, the contractor has played a leading part in helping exploit the potentials of pouches, flexible liquid packs and carded merchandise.

Marketing techniques, which are currently giving increased emphasis to sampling, premium offers and special promotions, have found a new alliance in the contractor's ability to pioneer better small packages or methods of handling them.

Costs

One of the least-explored subjects in packaging is the measurement of packaging cost. In the cases where such studies have been made, packaging costs show up as a surprisingly large percentage of the average manufacturer's selling price. However, there is still no handy yardstick by which the individual manufacturer can determine whether his expenditures are high, low or moderate.

Contract packaging can therefore well be of interest even to the nonuser of this service because of the benchmarks it establishes for a firm cost figure for a given type and period of production. This is especially true where small or fluctuating volumes are concerned.

It should not be inferred that a contract packager's costs will always be lower. They may even be higher. But even in that circumstance it may

³See "What Does Packaging Cost?" Modern Packaging, March, 1954, p. 125.



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ACME IOI be wise, in some cases, to use contract packaging because of intangible gains, such as the benefit of having a second source of supply, more rapid delivery to a certain trading area, or lower shipping costs.

One reason a contract-packager's prices may be lower is because his overhead, both direct and indirect, and his labor costs will frequently be less than a prime manufacturer's. Of course, a contract packager must add his profit and this will often bring his cost up to one somewhat comparable to that of the prime manufacturer. Some manufacturers try to compare their direct labor costs, alone, with the final price offered by the contract packager. Naturally, in such cases their costs are usually less.

Choosing a contractor

A manufacturer should make a thorough investigation of any contract packager with whom he considers doing business. As much care should be used in choosing a contract packager as in choosing a law firm, an advertising agency or any other vital service. Once a contract packager has been selected, he should be taken into the confidence of the customer and given full information concerning sales, redesign, package problems and all other pertinent facts. The contract packager should be treated as if he were one of the company's own plant managers.

It is suggested that the potential customer ask the contract packager for customer and supplier references. In addition, it would be well to check with the packager's bank and probably draw a Dun & Bradstreet financial report.

Many firms are quite hesitant to package any item outside their own plant because of a belief that it is to their benefit to manufacture everything possible in their own plant and thereby have a larger volume over which to spread their overhead. This is often a valid reason for limiting contract packaging, but it must also be kept in mind that it is often good business to subcontract a percentage of business at all times of the year, for this second source can prove a most important asset in the event of a strike, fire, flood or any other of the many possible courses of disrupted production.

The nature and amount of work to be contracted determine to a large extent the type of contract service needed and geographical location will have considerable influence on the product-manufacturer's choice. The conclusion is this: that practically any kind of service can be had and that the manufacturer has a wide choice of firms, ranging from small to very large, whose facilities meet many standard as well as non-standard needs in packaging production.

Folding box champs

(This article continued from page 107) nary customer handling of fresh produce. The folding construction permits it to be stored without wasting space in the store, yet it is easily and quickly set up by untrained help. It was felt that of all entries submitted in the competition, the new Applikay family of cartons presents the greatest possible new use of paperboard. It marks the first time that paint in cans has been merchandised in folding cartons and represents a remarkable departure from the customary paint package. At first glance, the cartons resemble a cosmetics line, taking cognizance of surveys which show that today the lady buys the paint for the family.

IV. General Superiority According to End Use. A. Medicinal Products: First award to Sharp & Dohme Direct Mailers, made for Sharp & Dohme by The Sparks Corp. These mailers, printed in three colors, letterpress, varnished, cleverly handle a difficult promotion—the selling of ethical drugs and their uses to physicians and pharmacists. Non-crushable, they depend upon unusual artwork and humorous titles to win the attention of the busy recipients. Merit awards: Water Analysis Kit made by Container Corp. of America for Culligan, Inc., and the

Morton Salt Tablet Dispenser, described above.

B. Cosmetics and Personal Accessories: First award, Elizabeth Arden Blue Grass Flower Mist, made by Robertson Paper Box Co., Inc., for Elizabeth Arden Sales Corp. This multiple compartment carton, printed in delicate shades of pink and blue, has promoted a definite feeling of quality so important in the cosmetics field. Developed as a one-piece blank in the interest of economy and to save time in set-up and inventory, the excellent construction of the package affords the necessary protection for its breakable product, while inner construction also eliminates need for a separate corrugated liner. Merit awards: Coty Cosmetics Family, made for Coty by Container Corp. of America; Schick Electric Shave Kit, made for Schick, Inc., by National Folding Box Co., Inc.; Kenmore Barber Set, for Sears, Roebuck by Paper Package Co.; Drene Shampoo Display, made by The Richardson Taylor-Globe Co. for Procter and Gamble; Hazel Bishop Nail Polish Display, by Trenton Folding Box Co. for Hazel Bishop, Inc.

C. Soap. There was no first award in this category. Awards of merit: "Fab," made for Colgate Palmolive Co. by Robert Gair Co., Inc., The Gardner Board & Carton Co., and The New Haven Board & Carton Co.; Glamorene Upholstery Cleaner, made by Alford Cartons for Glamorene, Inc., and "King Powdered Laundry Bleach," made for Mengels Herold Co. by The Guilford Folding Box Co.

D. Food. First award went to Nut Tree Tea Bags, made by Andre Paper Box Co. for The Nut Tree. These cartons, printed in two colors, letterpress, mark a bold step away from conventional tea cartons. They are characterized by distinctive lettering plus outstanding design that provides a subtle approach and appeal to the consumer. Use of the same design with different colors for various types of tea provides a family relationship. Cartons are displayed with fronts and sides alternating for maximum eye appeal and variety identification. Awards of merit: "Pak-A-Long," by Andre Paper Box Co. for Safeway Stores, Inc.; Mee Jun Hostess Tea Party, by Robert Gair Co., Inc., for Mee Jun Mercantile Co.; Duncan Hines spaghetti, macaroni and noodles family, by The Lord Baltimore Press, Inc., for Antonio Palazzolo Co.; Quaker Puffed Rice and Wheat, by Michigan Carton Co. and The Ohio Boxboard Co. for Quaker Oats Co.;

and Pfaelzer Brothers Frozen Meats, made by Morris Paper Mills for Pfaelzer Brothers, Inc.

E. Bakery Products. No first award was made. Selected for awards of merit were Sawyer's Saltine Crackers, made by Chicago Carton Co. for Sawyer Biscuit Co.; Charm Crackers, by Cornell Paperboard Products Co. for Robert A. Johnston Co., and Holiday Cake, made by Federal Carton Corp. for General Baking Co.

F. Confections. First award to Necco Candies Family, made by National Folding Box Co., Inc., for New England Confectionery Co. Distributed primarily on a self-service basis in supermarkets and chain stores where competition is particularly keen, the Necco line was designed so that maximum visibility would be given to the candies to stimulate impulse buying. The complete package design program, including 14 packages, is in keeping with consumer preferences for fractional-pound packages of a wide variety of candies. Included are two distinctive designs-one for the six smaller cartons and another for the eight larger units. All are printed in vivid colors on a white background. Awards of merit: Norris Easter Chocolates, made by O. B. Andrews Co. for Norris Candy Co.; and to Johnston's Sextet Family, made by Sutherland Paper Co. for Robert A. Johnston Co.

G. Tobacco and Related Products. First award, High Grade Tobacco Mixtures Display, made by Carton Service, Inc., for Mail Pouch Tobacco Co., Div. of Bloch Brothers Tobacco Co. Merit awards: Royalist Cigars, made by Diamond Paper Box Co. for Grabosky Brothers, Inc.; Phillies Perfecto Cigars, made by U. S. Printing and Lithograph Co. for Bayuk Cigars, Inc., and Webster's Golden Wedding Cigars, by and for the same companies.

H. Hardware. First award to Executive Speedway Power Kit and Holster, made by Ace Carton Corporation for Speedway Mfg. Co. This power tool, formerly packaged in a corrugated container, is adequately protected in a folding carton of high consumer appeal. Pictorial representation of the tool, in black and white, provides good impulse merchandising. Another feature is the incorporation of a plastic holster for the tool which may be snapped on the belt for convenient use and carrying. Awards of merit: Gates Sprinkler, made for The Gates Rubber Co., by The American Die & Box Co.; Buckeye Griddle Toaster, by The Bradley & Gilbert Co. for The Buckeye Aluminum Co.; Wooster Fabric X Painting Kit, by Container Corp. of America for Wooster Brush Co., and Cawley Fitting Carton, made by Robert Gair Co., Inc., for Cawley Aircraft Supply Co.

I. Textiles and Wearing Apparel. First award to Can-Can Panties by Container Corp. of America for Thomas Textile Co., Inc. This carton features a cutout window, appropriately situated, which shows off the color of the panties and permits examination of the fabric without removing them from the package. Back of the carton is utilized for a size chart. Merit awards: Paris Belts, by Ace Carton Corp. for A. Stein & Co.; Katy-Bib, by Bruce Carton Co. for Katy Bib Co.: Wamsutta Supercale Thermocover, for Wamsutta Mills, Inc., by Container Corp. of America; Martex Sun Set, by Old Dominion Box Co., Inc., for Fairfax Mills; and Matey's "Magic" Ensemble, made by Robertson Paper Box Co., Inc., for Manchester Knitted Fashions, Inc.

J. Retail Boxes. First award in this category went to the Oppenheim's Suit Box, made by American Box Board Co. for Oppenheim's, Inc. Marking the first major change in suit box treatment, this economical one-piece box was invented by a clothier, William C. Denby. It is designed so that either men's or women's suits may be folded shoulder to shoulder for wrinkle-free delivery. Garments are held in place by hanger and sleeve guards. Merit award: "Top Secret" box made by Andre Paper Box Co. for Joseph Magnin Co., Inc.

K. Carriers. First award in this group went to a carrier for Stegmaier Gold Metal Beer, made for Stegmaier Brewing Co. by Old Dominion Box Co., Inc. This is a divisible six-pack carrier with handle and can be split into two three-pack cartons for multiple choice by the consumer. It is filled automatically by Dacam automatic cartoning machinery. Merit awards: Welch's Grape juice carriers, made for The Welch Grape Juice Co. by Container Corp. of America, and Allstate Motor Oil, made by Old Dominion Box Co. for Sears Roebuck.

L. Beverages. Emerging as top award winner in this classification was the Old Taylor Bourbon Whiskey carton, made for National Distillers Products Corp. by Robert Gair Co., Inc., which also received a merit award for multi-color printing. Printed in four-



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merchandising for Brainard Mfg. Co.

samples and

color gravure and letterpress gloss, the carton features a beautifully executed reproduction of the product, serving as an excellent example of the fine printing now being accomplished on paperboard. Merit awards: Golden West carton, produced for Paxton & Gallagher Company by Milprint, Inc.; the Bacardi container made by Newth-Morris Box Corp. of Florida for Cia Ron Ricardi S. A., and the Seagram's Tripak carton produced for Seagram-Distillers Corp. by Standard Paper Box Corp.

M. Toys. The Pal "All Star" Baseball set, made for King Manufacturing Co. by National Folding Box Co., Inc., carried off top honors in this classification. In developing this package, the problem was to come up with an unusual container which would appeal to "young sportsmen." Accordingly, the multiple display-carrier-storage box was made to resemble a suit case, complete with handle. The customer credits this package with more than doubling sales on the junior baseball set. Merit awards: House of Cards package, made for Tigrett Enterprises by The Bradley & Gilbert Co.; Yogi Bird pack, made by and for the same companies; Doll Cradle pack, made for Darling Doll Corp. by Robert Gair Co., Inc.; Thimble-Drone TD-1 De Luxe Model Airplane heavy duty package, produced by San Diego Paper Box Co. for L. M. Cox Mfg. Co., Inc.

N. Paper and Paper Products. Cartons for Coronet Plastic Coated Paper

Plates and Cups, produced by and for Sutherland Paper Co., emerged as top award winners in this category. These boxes incorporate a new family design for this group of products, utilizing a transparent film window which shows off the interesting pattern of the products themselves. The containers offer immediate product identification, with the sales message worked directly into the package design. Merit awards: "Delicatessen" cocktail napkin package, made for Monogram of California by Fleishhacker Paper Box Co., and the carton for Veldown Paper Table Napkins, produced for International Cellucotton Products Corp. by Michi-

gan Carton Co.

O. Miscellaneous. The Shadow Box display container made by The Gardner Board & Carton Co. for Bowl-O'-Beauty Co. is credited with having solved the problem of successfully introducing a new product. Since the actual lamp and bowl are to be used on or near a television set, the design of the display unit follows the motif of a TV screen, with the outer frame using black board for contrast. A three dimensional effect is obtained when the display is illuminated. Awards of merit: Quality Roses carton, made for H. A. Conklin Co. by The Flintkote Co.; Christmas-tree stand, produced by Newth-Morris Box Corp. of Florida for Knox Products, Inc.; the Cross Country Flower Bulbs package, made for Sears, Roebuck & Co. by Paper Package Co.

Dry-packed foods

(This article continued from page 92) proved product protection is being given to many of these see-through packages today by the use of polyethylene7 or saran8 coatings, which also make them much more resistant to breakage.

Consumer acceptance of foods which take little preparation in the home has called for completely new techniques in writing direction copy appearing on the packages. A housewife must be told on the carton exactly how to bake a cake from a package of mix in the simplest and most understandable terms. The result must be successful or she will not go back to buy more, Large companies employ expert home economists to

7See "Polyethylene-Coated Cellophane," Моргих Раскасияс, March, 1954, р. 203. "See "Saran-Coated Cellophane," р. 80, this issue.

write these directions and continual study is helping to make them more easily understood and more foolproof. Such improvements have been made, for example, as stating directions for beating in the exact number of strokes, or the specified time required for the equivalent in an electric beater. The quantity of additives, such as water or milk, are stated today in cups or fractions thereof-not in ounces as did some directions in the past-a measurement difficult for housewives to interpret in terms of kitchen measuring devices. The exact size pan for the cake mix is also stated. Much attention has been paid to the legibility of type and type arrangement for direction copy so that it may be easily read without squinting or a search for glasses.

And continued efforts are being

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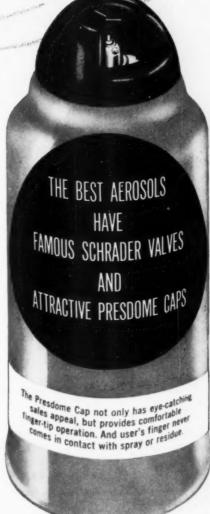
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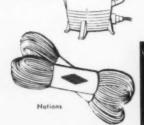
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PRODUCTS CO. 27th STREET . MILWAUKEE 16, WISCONSIN made to offer packages that are more convenient to use. American Sugar Refining, for example, in addition to providing a more highly protective lining recently to reduce the possibility of caking due to the entrance of moisture, devised a convenient opening and reclosable feature on its cartons for specialty sugars. General Foods has widened the mouth on Instant Maxwell House coffee jars for easier access in spooning out the product. Tightly heat-sealed cellophane bags are being equipped more frequently with tearing tapes or with tearing notches to make the opening easier.

Much more attention is being paid to sizes and units of sale to suit consumer requirements. Good examples are the variety packs of cereals-usually 10 packages, each an individual serving-to give each member of the family a selection and to keep the remainder fresh and unopened until the time of use. Another version of this idea is the new Gerber Cereal Quads package for babies-four 1-oz. cartons, each containing a different cereal, cellophane wrapped as a unit-the answer to the demand by young mothers for a variety of baby cereals in small sizes without the need for buying or opening a large carton.9

The present foil envelope for dehydrated soup mixes is planned to contain a quantity to serve an average family of four. Lipton is selling these three to the carton, as the most preferable quantity for the housewife to have on hand, except in the case of onion soup, which is still considered more or less a specialty and is sold in

single envelopes.

Trying to meet consumer demands in two different directions, several manufacturers of cake mixes are now offering both larger-sized packages and smaller ones, to meet the needs of different-sized families.

There is a trend worth watching, too, in the individual-serving packets used for powdered fruit drinks, cocoa, soluble coffee and such new products as powdered cream called "Pream."

Machinery aspects

The demand for increased production of dry-packed foods and steadily rising labor costs have brought about the development and use of some of the most highly mechanized equipment used in packaging. Machine de-

Appliances

[&]quot;See "Gerber's Quads," Modern Packaging, Jan., 1954, p. 116.



Safe, easy-to-handle carboy of Du Pont ALATHON* holds more...weighs less...cuts shipping costs

It's another packaging improvement made possible by the outstanding properties of "Alathon"

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ically pure (contains no plasticizer). And it has a very low rate of watervapor transmission.

This carboy consists of two half sections molded of "Alathon" and joined together by heat-sealing the flanged edges. A steel band is then bolted around the sides to form a permanent mechanical seam.

The screw cap, seal and pouring spout are also molded of "Alathon." The spout is reversed inward during shipment, is pulled up and reversed outward for easy pouring.

Du Pont "Alathon" has many applications in the packaging industry—as molded containers and closures and as a coating for paper. Perhaps it can help you in your future packaging needs. For full information, write: E. I. du Pont

de Nemours & Co. (Inc.), Polychemicals Department, Room 244, Du Pont Bldg., Wilmington 98, Del.

"Karbox"* Carboy molded by A. L. Hyde Co., Grenloch, N. J., for Tennessee Products & Chemical Corporation, Nashville, Tenn.

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velopments in this field have been applied, in principle or in fact, to many other fields, notably soaps, drugs, chemicals, etc., requiring dry filling of powdery, granular or flaky substances.

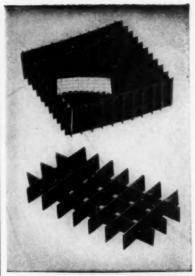
Completely automatic hook-ups are common today with machines that will set up a carton, form a liner, fill the liner, seal the liner, seal the carton and also apply an outer tight wrap if one is required. Most of these machines, which were originated to meet the needs of dry-food packers, are basic types which can be and are adapted to hundreds of free-flowing products packed in folding cartons.

Faced with the problem of accurately weighing and rapidly filling, without breakage, light-weight prod ucts such as flake cereals, the food industry has been an outstanding contributor to the whole packaging field's unrelenting search for accurate mechanical filling. Producers of drypacked foods were among the first users of recent significant weighing advances, including the hydraulic-electronic system and the newest air-control method. They have been pioneers in the use of mechanical checkweighing and statistical control methods, and have helped develop techniques for the inspection of packages against contamination.

Since the dry, powdery nature of many of the products creates a dust problem, this field has been interested in dust-free filling methods. Many such problems are controlled by auger filling from the bottom up.

One of the greatest boons to the mechanization of packaging has been development of heat-sealing materials and equipment for handling them, and here again the dry-foods packers have been leaders. Eliminating the glue pot has been one of the most important factors in increasing the speed of machinery and greatly improving the protective as well as appearance properties of packaging. It is in this realm that have been developed all of the pouch-making equipment, the mechanical handling of liner bags and the making and sealing of transparent bags.

Studies in the performance of finished packages have proved that no package is better than its seal. While many materials are excellent watervapor barriers in themselves, they may be inefficient as a package simply because of the weakness of the seal. Refinements in techniques of heat seal-



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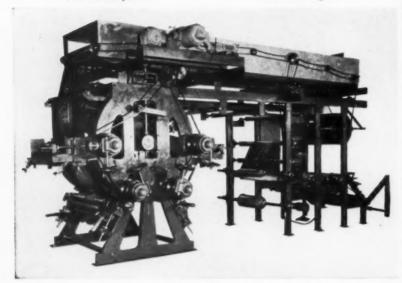
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ing and more advanced machines with accurate control of pressures, temperatures and dwells are constantly helping the dry-foods industry to achieve better seals at higher speeds. Improved heat-sealing equipment has also brought about ways of handling heretofore unmanageable films such as polyethylene.

Because of steadily stiffer competition and rising costs, the packaging of dry-packed foods is an ever continuing study. Nobody's package in this field—or in any other, for that matter—can survive for long without keeping abreast of the trends. Today's cereal packages, for instance, with their excellent protective liners, colorful cartons or overwraps, are a far cry from the packages used even a decade ago. Constantly improved materials and refinements in techniques will make them even better.

CREDIT: Tip-on page 91, courtesy Riegel Paper Corp., 260 Madison Ave., New York 16.

Saran-coated-

(This article continued from page 83) products, the company formerly used 300 MST 54 for the inside wall and 300 MST 53 for the outer, K-202, in a single thickness, now gives better appearance and protection at an estimated 4 to 5% higher cost. Future plans call for trying more of the film on other products.

The same phenomenon that aids dried fruits makes saran-coated cellophane attractive to those who package candies and other sugary products. Its high resistance to gas transmission helps protect highly flavored or scented products.

For the sake of better appearance, bags fabricated from K-202 are preferred by the Curtiss Candy Co., Chicago, for two products—sugar-coated marshmallows and hygroscopic drink powders. Bags of the marshmallows, printed in an attractive red, blue and white design, are said by the company to be surprisingly clear and smooth. When manufactured, K-202 tends to have slightly more streaks and haze than other cellophanes, but they are not discernible in the filled package.

CREDIT: K-202 saran-coated cellophane (used in all examples described and illustrated in this article) manufactured by E. I. DuPont de Nemours & Co., Inc., Wilmington 98, Del.



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NEW YORK: 55 WEST 42 STREET

A new expandable polystyrene bead which expands into snow-white masses when heat is applied has been announced by the Research Department and Chemical Division of Koppers Co., Inc., Pittsburgh.

It is said to be an improvement on the foam-type plastics which heretofore could be processed only in sheets or blocks. It can actually be "popped" into various shapes and sizes in heated molds in a single operation. As produced by Koppers, the new material is in the form of tiny, hard beads of the plastic-polystyrene-impregnated with a special foaming agent that reacts under heat somewhat like the moisture entrapped within a kernel of

Packagers will be interested in the



SAME QUANTITY of new foamed polystyrene before and after expansion demonstrates dramatic characteristics of the new plastic material.

fact that the beads could be used to mold a plastic container around any object, particularly those that are irregularly shaped. Although packaging uses have not as yet been fully determined, there is a strong possibility that initial uses will be to form packages around precision instruments and the like. The excellent thermal qualities of the material, Koppers researchers say, would also make it ideally suited. in sheet form, as an insulating material in shipping cases for frozen foods.

While pieces molded with the new plastic retain the outward appearance of having been made from tightly packed snow, their formation in molds actually creates a surface toughness which effectively resists crushing of the expanded material.

Faster Capping!

To get more cases per hour from your lines probably would mean buying a stronger cap—a cap that won't chip or shatter when you step up line speeds.

That could mean a more expensive cap, of course. But it doesn't have to. You can get that improved performance with Armstrong's Hi-Tork® Caps—and at no extra cost! Sure, they're slightly heavier, but the real secret of their extra strength is in their design. Each part—dome, thread, and skirt—is reinforced in just the right ratio to the stress it has to take. Result: an extra-strong cap that gives higher line speeds with no increase in breakage.

Test them on your own lines. We'll gladly help set up a test run. See your near-by Armstrong office or write Armstrong Cork Company, Glass and Closure Div., 5304 Clay St., Lancaster, Penna.



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Amendment to Rule 41

An amendment to Rule 41, Uniform Freight Classification, expected to be effective mid-May and published in a supplement to the Classification has been announced by the Official Classification Committee as follows:

Slotted Boxes and Double-wall Corrugated Boxes Section 2(d). Fibre boxes without wooden frames must be made of 3-ply or more solid fibreboard, except as provided in Note*, having proper bending qualities, all plies firmly glued together, and outer ply waterproofed; or of double-faced or double-wall corrugated fiberboard having proper bending qualities, each outer and each inner facing being of fibreboard having proper bending qualities, facings being firmly glued to the corrugated sheet at all points of contact and the outer facing waterproofed. The corrugated medium in all corrugated fibreboard referred to in this rule or in separate descriptions of articles must be made of board not less than 0.009 in. thick of quality sufficient to produce finished board of adequate rigidity and weighting not less than 26 lbs. per 1,000 sq. feet.

If weight of box and contents is less than maximum weights shown in Section 3, the maximum inside dimensions for that box may be increased half the percentage that the actual weight is less than maximum weight specified, see Note 4, Section 9 of the Classification.

Provided the strength of the box is not materially affected, boxes:

- (a) May have hand holes or ventilation holes.
- (b) May be perforated once around center to facilitate separation of box into two equal parts, or may be perforated once off-center provided the sides of the box are lined full height with taped, stitched or glued corrugated fibreboard tube same test as box, or
- (c) May have inside facing cut or scarified to form not more than two ribbons for easy opening provided further the corrugating medium is neither cut nor crushed nor otherwise damaged.

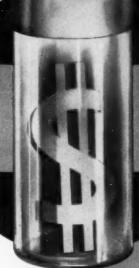
Note—Two-ply board may be used for solid fibre boxes when maximum weight of box and contents does not exceed 40 lbs., except that not less than 3-ply board may be used for solid fibre boxes with other than four sides.



PLASTIC CONTAINERS

are proven PROFIT-PRODUCERS

Lower Selling Costs



Slice Shipping Costs Save Breakage Costs

Clearsite Plastic Containers are

Cut Packaging Costs

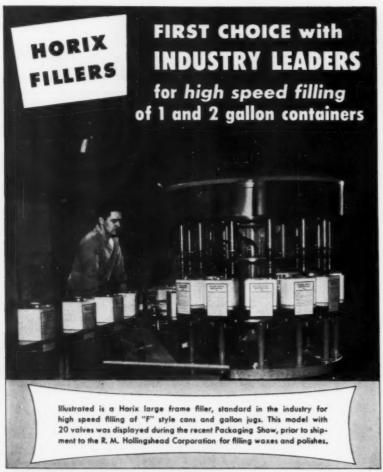
show windows that glamorize your product, protect it while on display, sell more of it every day. They are moisture-tight, feather-light, shatter-proof. One-fifth the weight of glass, Clearsite cuts shipping costs and boosts profits. Any lettering, design or trade-mark can be permanently printed in any colors right on the container. Available in a wide range of sizes and adaptable to many kinds of closures. Special sizes also made to your specifications.

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GENERAL OFFICES: 50 AVENUE L., NEWARK 5, N. J.



TYPICAL USERS OF HORIX HIGH SPEED FILLERS FOR LARGE CONTAINERS

| COMPANY | PRODUCTS | CONTAINERS |
|---------------------------------------|--------------------------|-----------------------------|
| S. C. Johnson & Son, Inc. (Canada) | Liquid Wax and Polish | 1 & ½ Gal. Cans |
| R. M. Hollingshead Corp. | Waxes and Polishes | 1 Gal. Rect. Cans |
| Wine Growers Guild | Wine | 1 & 1/2 Gal. Jugs |
| Coca Cola Company | Cola Concentrate | Gal. Jugs and Round Cars |
| Atlantic Refining Co. | Motor Oits | 2 Gal. Rect. Cans |
| Shell Oil Company | Motor Oils | 2 Gal. Rect. Cans |
| Italian Swiss Colony | Wine | 1 & ½ Gal. Jugs |
| Raiston Purina Co. | Insecticides | Gal. Rect. Cans |
| Gem Packing Company | Olive Oil | 1 & ½ Gal. Rect, Caes |

Horix fillers have long been recognized as the most dependable and economical liquid and semi-liquid rotary fillers on the market—the reason for their wide acceptance among yield conscious production men. No other fillers offer so many outstanding features.

- · Guaranteed accuracy of fill
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- No container—no fill
- . No geration—no everflow
- Simple rugged construction—low maintenance

Horix complete line includes a semi-automatic 5 gallon filler, portable hand-operated fillers, as well as small, medium and high speed rotaries. These are described in new illustrated folder No. 155 C. Write for it today.



Lowest Unit Filling Cost — Highest Product Quality

Write for it today.

MANUFACTURING CO. PITTSBURGH 4, PA.

Drums for wire

A new method of packaging copper-base-alloy wire around a core in a specially adapted fibre-and-metal drum, devised by Scovill Mfg. Co., Waterbury, Conn., is reported to offer users the advantages of longer production runs, improved storage facilities and reduced handling to ma-

The new containers hold about 300 lbs. of brass wire which in lighter gauges are equivalent to 411,000 ft. or more than 77 miles of wire. Each continuous coil in the new container is about eight times longer than conventional coils which weigh about 35 lbs. each. This nearly ten-fold increase in weight constitutes a substantial reduction over former storage space requirements.

The new containers protect the wire from dust, dirt and other foreign substances. The new container is be-



FOR LOADING, drums are placed on a revolving turntable synchronized with wire formers to take-off wire directly onto core in new fibre package.

ing used to ship wire in diameters ranging from 0.016 in. to 0.060 in. inclusive in any temper except soft. Outside dimensions of the new fibre container are 30% in. high and 23% in. diameter.

For the packaging operation, the drums are placed on a revolving turntable so that the wire is wound around the core inside the drum as soon as it comes off the wire-forming machine.

CREDIT: "Payoffpak" fibre and metal drum, Continental Can Co., Fibre Drum Div., Van Wert, Ohio. Whatever the job...





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APRIL 1954

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• When you use this set-up, your present problems of labor supply, maintenance, obsolescence of equipment, warehousing and shipping become our respon-

• Investigate now without obligation. We'll be glad to give you a complete analysis of costs versus your present arrangements. Get in touch with us today.

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PETROLEUM

Forestation milestone

A milestone in reforestation was reached when the number of pine tree seedlings planted by Gaylord Container Corp., on its tree farms in Louisiana reached the 100,000,000 mark in February. The actual planting took place at Millard, Miss. This reforestation work began in 1920 as part of a program in the minds of Charles W. and Frank Goodyear, centering around operations of the Great Southern Lumber Co., which established a pulp and paper mill in the area in 1918. Since 1937, the reforestation program has been operated by Gaylord Container Corp. due to a merger that year between the original lumber company and Gaylord.

In 1920 there were no large commercial plantations of forest trees in the United States. The present Gaylord project was started in 1920 with



100,000,000th TREE being planted in Gaylord's man-made forest for pulpwood. Left to right: A. C. Goodyear, chairman, board of directors; Gaylord Container Corp.; J. K. Johnson, re-tired, former chief forester, Great Southern Lumber Co.; Miss Mary Easton Goodyear, great granddaughter of a founder of Great Southern Lumber Co.; C. W. Goodyear, first vice-presi-dent. Gaylord Container Corp.

800 acres on which pine seeds were planted. By 1948, the program resulted in the planting of 56,000 acres, using modern planting machines capable of planting 10,000 seedlings a day with a crew of two men.

Total area of the man-made forest today is 110,500 acres. E. J. Spiegel, president of Gaylord, said, "this by no means represents the end of our planting program" in Gaylord's 475,000 acres of forest land in Louisiana and Mississippi.

MAKE THIS "ONE SWEEP" TEST YOURSELF!

See how BLUE RIBBON Gummed Tape Seals Faster . . . the first time down!



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Proof positive of Blue Ribbon's instant action.

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Figure the increased production you will get with a tape that goes down faster—users* report as much as 25% greater output . . .

stays down to last—with no rerubbing or resealing. Figure the savings you'll make, too.

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*Names on Request

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More Olin cellophane

A new plant that is estimated will double the productive capacity of Olin cellophane has been announced by John M. Olin, president of Olin Industries, Inc. Plans call for the erection of a new cellophane plant, located at Kern, Warren County, Ind.

The plant at Kern will be designed and constructed by E. I. du Pont de Nemours & Co., Inc. under the terms of a contract made in November, 1949, whereby Olin purchased the right to use Du Pont cellophane patents and technical information and secured Du Pont's agreement to design and construct two cellophane plants.

Mr. Olin pointed out that with plants in Indiana and North Carolina Olin's ability to serve the rapidly growing demand for transparent material will be greatly improved. Consumer demand for transparent packaging has more than doubled the sales of cellophane during the past 10 years, according to Mr. Olin.

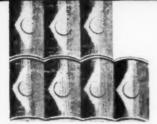
Olin cellophane is marketed by the company's Film Division, with sales offices in New York, Chicago, Atlanta, Philadelphia and San Francisco.

The Kern plant is expected to emrlov approximately 600 persons. Engineering work is already under way and actual construction will begin at an early date.

Shock mounting

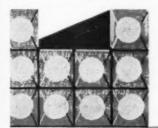
(This article continued from page 125) factor may be employed, particularly when fatigue life is being evaluated. Loading the mounting system until the bottoming condition has been reached and then releasing this load might well constitute the most severe test series to be performed in the laboratory. The criteria of the number of times that a given system can be fully loaded and then suddenly released should serve as a sound basis for comparative evaluations. As more adequate and more accurate data from field environmental conditions are obtained, the experimental method can be further used as the basis for predicting performance.

An advanced state of the art would lead to a master index or catalog showing the acceleration forces generated by each type of common carrier under all field conditions. Such an index would require statistical methods of analysis and could not be based upon a single factor or explained by use



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that stand out



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of a single term because of the complex nature of the problem.

In the opinion of the author, attempts at using a single term such as *G factor* or *shock zone* represent an example of over-simplification that can be highly misleading, to say the least. While it is true that one must use terms that are widely understood in order to benefit the greatest numbers of those working in the field, the state of the art would seem to preclude such terms at present.

Instead of these vague terms, much can be said for the use of accelerometer pictures showing effects of rail humping, truck transport, air-eargo transport, etc.; common parameters found by careful study of these data could be readily compiled by statistical methods. To the designer it should be a matter of prime importance to determine the wave form of shock and vibration generated by each type of common carrier and by the phenomena of handling. The all-important parameters lie in the wave form against which protection must be provided.

The fact that a particular form of wave came about by dropping a package on steel flooring would be of value in pinpointing the place along the route of shipment where the drop took place. Such facts would enable eventual improved handling methods; however, our prime consideration must be given to the *form* of shock and vibration encountered.

While beyond the scope of this paper, it is of much interest to note that the "single-spring" concept shown in Fig. 1 may be studied by the methods of electrical engineering. It can be shown that a simple series circuit of resistance, inductance and capacitance can be made to exhibit the same response as our mechanical system. The selected references may be studied by the reader for a further insight into the terms resistance, inductance and capacitance and their analogy to spring constant, mass and viscous friction constant, respectively. Introduction of an electrical transient into the electrical system can be seen to produce the same sort of output signal as does the experimental method of introducing a load into the mechanical system and suddenly releasing this load when testing mounting systems.

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Acknowledgments

The author wishes to express his appreciation for conferences with Dr. Raymond D. Mindlin at Columbia University; Stanley Fillion at Waugh Equipment Co.; Dr. C. C. Van Vechten of Naval Ordnance Quality Control Division; Dr. Irwin Vigness of Naval Research Laboratory, and Dr. Elias T. Klein, chairman of the Central Committee for Shock and Vibration of the Research and Development

TAPPI reports

Progress reports on standardized tests for packaging materials and finished packages were presented at the recent meeting of the joint TAPPI-Packaging Institute Packaging Testing Committee in New York. The importance of the work was re-emphasized by chairman William H. Aiken, Gardner Board & Carton Co., and echoed by both TAPPI and the Packaging Institute, joint sponsors of the committee.

T. E. Dobbins, American Can Co., reported for the Water-Vapor Permeability Sub-Committee. Work of this group is directed towards drawing up tentative test procedures for determining water-vapor transmission of packaging materials at 100 deg. F. and 90% relative humidity. Present investigation is concentrated on the so-called General Foods method as past experience indicates this procedure, with refinements, is the most acceptable. Results of present investigations are expected to be made available at the February, 1955, TAPPI meeting. Response to the suggested method for determining WVT of materials at 0 deg. F. which were established and circulated during the past year to members of TAPPI and the Packaging Institute have been favorable, it was reported.

The Sub-Committee on Water-Vapor Transmission of Completed Pack-

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CaPeM Screw Cappers apply all types of metal and plastic screw caps to jars, bottles, cans and jugs ranging in size from 1 oz. to gallons. Speeds range from 40 to 300 containers per minute. Write for complete information.

Robert M. Greer, Supervisor of Bottling. Mr. Greer supports the judgment of other representative companies by selecting this high speed, six-head, rotary CaPeM model D-6-F as a logical answer to the growing demand for Texize products.



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ages, headed by C. M. Woodcock, General Foods, is in the process of revising its suggested test procedures as a result of round-robin tests conducted during 1953. The final procedure for determining moisture proofness of completed packages will call for a test atmosphere of constant temperature and humidity using calcium chloride in both package and product. It was the decision of the subcommittee that rough handling or cyclic testing should be made the basis for a separate test procedure.

H. S. Gardner reported for the Sub-Committee on Insect Resistance of Packages, Paper and Paperboard. This group, according to Mr. Gardner, is in the process of preparing a tentative procedure to submit to the committee at its fall meeting.

The organoleptic method for determining flavor-odor transfer of packaging materials was accepted by the committee. A. H. Landrock, reporting for his sub-committee, announced that this method will be circulated for comment to members of the sponsoring groups. The sub-committee recommended that the alternate method involving methyl furoate should be eliminated as a test procedure because of lack of evidence that this chemical is typical of common odors or generally-used flavoring agents. Mr. Landrock's group was assigned a new project for developing a test procedure for measuring permeability of oxygen, nitrogen, carbon dioxide, etc.

Novel premium



TOY SODA FOUNTAINS used for "Fix-A-Drink" beverage syrup, are the latest premium idea of Recipe Foods, Inc., Baltimore, Md. The miniature fountain is made of paperboard with dual plastic pumps to fit the full-sized syrup bottles. It is offered as a self-liquidating premium for 50 cents and part of a "Fix-A-Drink" label.

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HELP WANTED: Folding Paper Cartons—Plant Superintendent—Full knowledge of printing, cutting and all phases of production. Assistant Plant Supervisor—experienced in all depts. Modern plant located in Michigan. Box 740, Modern Packaging.

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9

WANTED

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Our new address.

Our new address McLean Blvd. at East 26 St., Paterson 4, N.J.

SALES REPRESENTATIVES: Brokers—agents-side line, competitive line of glassine lined coffee bags. Established company, good territorics available. Commission basis. No experience necessary. Box 750, Modern Packaging.

SALESMAN: Young man with some experience to head up national sales and make calls in metro N. Y. for firm located in northern N. I manufacturing until type packaging machines as well as several different type automatic production machines, such as labeling, marking machines, and feed hoppers, etc. Modest salary, but expenses and commission. SALES REPRESENTATIVES wanted for most states. Box 751, Modesn Packaging.

PACKAGE DESIGNERS AND LETTERER: Pack-PAURAGE DESINSERS AND LETTERER: Package Designers for expanding firm. Must be experienced and top-noteb—thoroughly familiar all packaging methods and materials especially plastics. Must have creative talent capable of preparing and presenting sparkling renderings. Excellent opportunity. Full or part time. Write for appointment giving brief resume. Box 754, Modern Packaging.

(Continued on page 194)

Looking for...



HEAT-SEAL CELLOPHANE BAGS?

... then look to

LOW COST INVESTMENT!

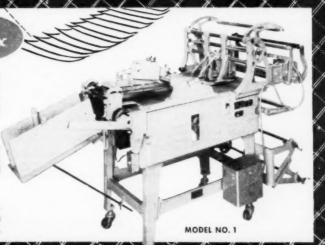
—Standard Simplex Cellophane Bag Making Machines, crimp or folded bottom, cost around \$2,000 (plain bags). Send samples or bag sizes for specific quotation.

LOW COST ATTACHMENTS!

—Exclusive, low cost Simplex attachments convert standard Simplex Cellophane Bag Making Machines to almost any desired bag making need.

LOW COST OPERATION!

—Simplex engineering assures automatic, high speed heat-seal bag production, less change-over time and reduced labor cost.



With low cost, exclusive attachments, one Simplex machine will do the work of several, including tear tape application, crimping, heat-seal labeling, etc. And the Simplex heat-seal action eliminates your glueing problems. Whatever your requirements—plain or printed stock, single or duplex walls, folded or crimp bottoms, cellophane, Pliofilm, glassines, heat-sealable foils or similar heat-sealing materials—look to the completely versatile Simplex Cellophane Bag Making Machines for the low cost answer to your high speed bag making problems. For new bulletin SPM-533, write to Simplex Packaging Machinery, Inc., 534 23rd Ave., Oakland 6, Calif., Dept. M-4.

Check with Simplex for your bag and packaging needs...Other Simplex models for polyethylene bags...scrim and barrier bags and pouches...semi-automatic filling machines and top sealing machines...Simplex-O-Matic for automatic bag making, filling, weighing or measuring, and sealing. For details write to Dept. M-4.

Simplex Model No. 1, Standard folded bottom bag machine costs about \$2,000, including installation (plain bags). Up to 4,000 heat-seal folded bottom bags per hour. Bag widths from 1½" to 9", lengths from 1½" to 16". Flat or tube, plain or printed stock, flat or gusset, single or duplex wall bags. Electric Eye and other attachments optional at extra cost.

NEW SIMPLEX CELLOPHANE TEAR TAPE ATTACHMENT!



TEAR TAPE ATTACHMENT adds sales appeal to your packages. Applies tear tape strip as bag is formed for complete bag length opening. Twin knives nick seal for easy start to tear action.



SIMPLEX PACKAGING MACHINERY, INC.

534 23rd AVENUE, OAKLAND 6, CALIFORNIA

REPRESENTATIVES IN ALL PRINCIPAL CITIES

fmc

SUBSIDIARY OF FOOD MACHINERY AND CHEMICAL CORPORATION

(Continued from page 192)

HELP WANTED

HELP WANTED
We are interested in several aggressive experienced converter salesmen. We have a
complete line of printed cellophane and
polyethylene both in bags and roll stock.
Salary, expenses and bottus to producer. All
replies held in strictest confidence.
The Munson Bag Company
1366 W. 117th Street
Cleveland 7, Ohio

SITUATIONS WANTED

COATING, LAMINATING, EXTRUSION Gravure printing, impregnation, foil rolling, vacuum motal evaporation. Rubber, plastics, thermosets and lates. Aluminum, papers, films, textiles, Classified defense and commercial. Extreme temperature conditions. At present chemical director, AsA-I multi-plant company which operates in all these fields. Wish to change; available for two days per week on permanent basis.
Development, Production or Marketing, Individual problem or general supervision or special conditions. Box 739, Modern Packaging.

PURCHASING AGENT: Thoroughly experienced purchasing for national package goods manufacturers. Has bought glass and plastic bottles, jurs, tubes, closures, labels, foil, cellophane, set-up and folding boxes, corurgated shipping containers, chemicals, plastics, metals, hardware, advertising displays and catalogs. Heavy experience developing new packages. Familiar inventory control and follow-up. Capable complete charge Purchasing Dept.—or assistant. Top flight team man. Box 747, Modern Packaging.

SALESMAN: Desires to represent a reputable from in Chicago area. For past twenty years have been employed by one manufacturer selling a mechanical specialty and paper products to all kinds of industrial trade and am well ac-quainted with these buyers. Have had experience in biring and training salesmen. Am now em-ployed. Box 752, Modern Packaging.

MISCELLANEOUS

PLASTIC SCRAP: Collulose Acetate and rigid vinyl sheet scrap in any quantity. Also Polysty-rene, Acetate, Buyrate molded rejects, scraps and excess molding powder inventories. Box 738, Modern Packaging.

PAPER CONVERTERS NOTE: Would you like a permanent close mill connection with a cylinder machine mill in the Middlewest on specialty products, including various types of the highest grade boxboards, both coated and uncoated. If so, write at once for particulars. Box 742, Modern Packaging.

PRINT ROLLS FOR SALE

Copper print rolls, some used, some like new. Fraction of original cost. 15" to 20" circumference by 60" face, ½" to 1" thick copper shells all on "X" taper mandrels. Also some 24" and 48" circumference. Valety of patterns, one to four colors. Also excellent as base cylinders for your new photo or machine engraving, at big savings.

Joseph Schwartzbach and Sons Eleventh Avenue Roselle, New Jersey

DESIRE TO PURCHASE: Celanese film P904 formulation. 8B to 200 gauge. Full or partial realis, surplus stock. Also Plexiglas sheets. Commercial Plastics & Supply Corp., 630 Broadway, N. Y. C. GR 7-5000.

NEWEST INVENTION IN CONTAINER CLO-NEWEST INVENTION IN CONTAINER CLOSURES: Attractive, practical, highly sanitary, simple in construction. Closure securely attached by novel means to bottle or container. Assures closure from being misplaced or dropping off in use, Ideal for the premium or specialty field. Will contract on royalty basis. Illustrative and descriptive folio sent upon request. Hilda S. Makela, 216 Lincoln Street, Waukegan, Illinois.

MANUFACTURER'S REPRESENTATIVE: Can devote time, loft space and truck to handling your stock, shipping and invoicing, N.Y.F.P., 44 West Houston St., New York 12, N. Y.

BOTTLES WANTED: We buy bottles . . . elosures. Any type . . . large and small quantities. Contact State Bottle Company, 2722 E. 51st St.. Cleveland 4, Obio. HEnderson 1-7177.

PLASTIC SCRAP AND REJECTS IN ANY FORM: Cellulose Acetate, Butyrate, Polystyrene, Vinyl, Polyethylene, etc. We pay top prices for clear, colored and printed scrap in any quantity. Box 736, Modern Packaging.

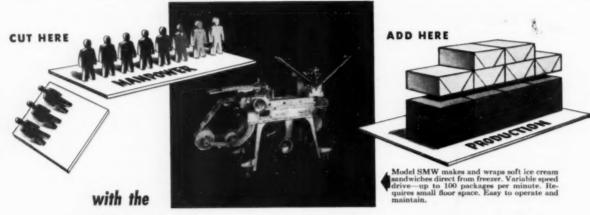
All classified advertisements payable in advance of publication

Closing date: 12th of preceding month; e.g., April 12 for May issue

Up to 60 words\$10.00 Up to 120 words\$20.00 Up to 180 words\$30.00 Up to 180 words (boxed) \$60.00 Up to 60 words (boxed) \$20.00 Up to 120 words (boxed) \$40.00

For further information address Classified Advertising Department,

Modern Packaging, 575 Madison Avenue, N. Y. 22, N. Y.



SIMPLIFIED design of LYNCH packaging machines

Being a hidden feature, it's easy to underestimate the part simplification plays in packaging efficiency. But simplified design, in packaging machines, actually produces big savings. With fewer parts to wear, for instance, there is less down-time-and less-skilled workers can handle the job. Operators and machines are kept busy producing!

It pays to compare to look for simplicity in design. And it pays to look to Lynch. For more than twenty-five years, continuous research, at Lynch, has produced a long list of features that have led to greater speed, simplified designreal packaging efficiency. Put these features to work in your packaging line. Consult with our engineers. No obligation.







CORPORATION





From paper rolls to assembled partitions ...automatically!

SPECIFICATIONS

Floor Space 4 ft. x 12 ft.

Weight approximately 3,000 pounds Pulley Speed ... 400-600 R. P. M.

Machine Speed . 100-150 R. P. M.

H. P.

Up to 3,000 complete parti-Production

This high speed Horizontal Automatic Partition Machine takes the paper stock from rolls of proper width, slits, dies out and assembles partitions complete in one operation with one operator.

Send sketch or sample of partition you wish to make. A specific proposal will then be furnished giving complete details with price and delivery.



INMAN MANUFACTURING CO., INC.

Amsterdam, New York





Can't Jam or Break Cases

Cases pass thru with flaps vertical-positive stops prevent sideways jamming—only one case at a time can engage the pushers—easy to clear machine when in motion. Send for Bulletin No. MP 1498,





how a purchase saves you thousands in marking and shipping costs!

With as little as \$30 worth of ALGENE marking equipment, many firms have made profits of several theusands of dollars due to savings in labor, time and inventory of printed boxes.

The self-inking, light weight ALGENE Printer performs 8 times faster than stencilling, labelling, or rubber stamping — and your workmen prefer it! You can have combinations of markings in one operation. Thousands are in successful use in all industries. Many sizes and models available. Write for free 8-page catalog today.

ALGENE "Quick-Change" PLATES Complete Message Changed in Secon

complete Message Changed in Second Capable of producing over 1,000,000 impressions, ALGENE "Quick-Change" plates are nade to your specifications at the nominal cost of \$3 to \$4 per plate. ALGENE Printers can be used also with interchangeable type in any size from 1/16" to giant 1½" letters.



algene marking equipment co. migrs. of hand & automatic marking machines 232-H PALISADE AVE., GARFIELD, NEW JERSEY

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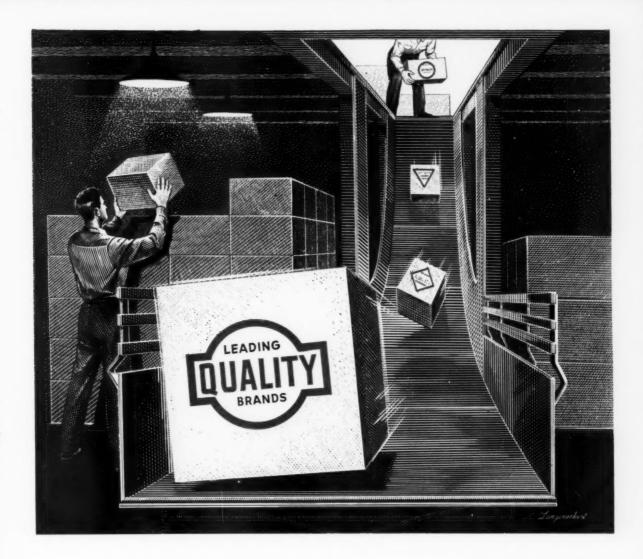
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MODERN PACKAGING



Published by Modern Packaging Corp., 575 Madison Avenue, New York 22, N.Y.



Gaylord Boxes Insure Happy Landings for Your Products

What happens to your products when they "hit the road?" Are they treated as carefully as you treat them back home?

Undoubtedly NOT! They're bounced . . . thrown . . . jostled . . . bumped. Not purposely, of course—but it does happen.

For minimum damage, many leading manu-

facturers are careful to specify Gaylord Boxes. This is a natural compliment to high quality, superior materials, and special protective abilities.

Make a wise investment in cost-cutting product protection. Contact your nearby Gaylord Sales Office.

GAYLORD CONTAINER CORPORATION

SALES OFFICES



General Offices: SAINT LOUIS, MO.

COAST-TO-COAST

CORRUGATED AND SOLID FIBRE BOXES . FOLDING CARTONS . KRAFT BAGS AND SACKS . KRAFT PAPER AND SPECIALTIES

APRIL 1954

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"VUEPAK cuts PACKAGING and SHIPPING costs...adds SALES APPEAL!"

- Mr. L. G. Morris, Sales Manager, Eaton Paper Corporation, Pittsfield, Mass.



See how Vuepak cellulose acetate tops dramatize Eaton's beautifully designed new "Woodland Flowers" series. The Vuepak is fabricated by Transparent Enbricators Inc. of Fabricators, Inc., of 220 Fifth Avenue, New York City.

> NOTHING sells our Eaton Note Paper like the merchandise itself," says Mr. Morris, "And in our opinion, Vuepak does the outstanding job in its field of sparking up the beauty of our designs, colors and textures to attract customer interest and multiply impulse sales." Eaton's wholesalers and direct customers report the same sales success with Eaton Note Paper in Vuepak.

> Eaton's story is identical with that of hundreds of other manufacturers, like Botany Mills and Aristocrat Leather Products Company, who produce items in all price grades, from high to low. Actual tests show that products packaged in rigid, transparent, crystal-clear Vuepak outsell the same merchandise packaged "blind" by four ... five ... even six to one! And retailers report far less loss from shopworn goods.

'Vuepak enhances our loveliest note paper de-

signs and colors . . . never obscures or distorts their beauty," states Eaton's stylist, Miss Margaret Falconer. "Vuepak saves us money," reports Eaton's production department. "Instead of having to print and process package tops, we simply stock Vuepak tops in 3 basic sizes . . . and re-order as our supply runs out. We find, too, that Vuepak tops reduce all-important shipping weight, cutting costs to retailers and giving our wholesalers an extra competitive edge. Vuepak cartons beautifully, doesn't dish in shipment or belly at the sides on retail counters.

Why not join the growing number of blue-chip manufacturers who package with Vuepak? It combines excellently with boxboard, wood, metal or other plastics. Ask your supplier, or send this coupon for complete facts about Vuepak, and how it can add the power of sight to your sales.



SERVING INDUSTRY ... WHICH SERVES MANKIND City, Zone, State

MONSANTO CHEMICAL COMPANY, Plastics Division, Room 4102, Springfield 2, Mass Please send me your new packaging report and information on Vuepak.

Name and Title

Company



How to keep a housewife from saying "baloney"

You don't want her to ask for just anybody's baloney... you want her to ask for your brand.

Neither do you want shoppers saying "baloney" to your claims for the freshness of your packaged luncheon meat, cheese or bacon. But in ordinary packages, flavor-stealing air often causes product spoilage, shrinking or discoloration.

That's why 9 out of 10 of America's leading packers have turned to flex-vacuum packaging their food products in featherweight, multi-color-printed Flex-Vac packages that are both transparent and rugged.

Peak freshness and flavor are sealed in right after the product is sliced in the packer's plant. They stay in until the housewife breaks the Flex-Vac seal in her own kitchen. That's when she stops saying "baloney" and starts asking for — it could be your brand.

Whatever your packaging problem, talk first to Flex-Vac. No firm has a wider range of tested packaging materials to choose from — more experience in flex-vacuum packaging.

For facts and figures on how leading packers are successfully using Flex-Vac, call or write us.



FLEX/AC) STANDARD PACKAGING CORPORATION

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